

ANNUAL REPORTS, WAR DEPARTMENT

FISCAL YEAR ENDED JUNE 30, 1912

U.S. REPORT OF THE
PHILIPPINE COMMISSION, 1900-

TO THE SECRETARY OF WAR

1912

SPECIAL NOTICE.

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THE matter contained herein comprises the entire Philippine Commission Report for the year ended June 30, 1912, as printed in the United States.



WASHINGTON
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1912

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(IN ONE PART)



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REPORT OF THE PHILIPPINE COMMISSION

TO THE

SECRETARY OF WAR.

ANNUAL REPORT OF THE PHILIPPINE COMMISSION TO THE SECRETARY OF WAR.

MANILA, *October 8, 1912.*

SIR: The Philippine Commission has the honor to submit its thirteenth annual report, covering the fiscal year ending June 30, 1912.

LEGISLATION.

EXCLUSIVE LEGISLATIVE JURISDICTION OF THE COMMISSION.

Acting within its exclusive legislative jurisdiction over all that part of the Philippine Islands inhabited by Moros or other non-Christian tribes, the Commission enacted during the fiscal year 36 laws, of which the following are the more important:

An act prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Mountain Province and the Provinces of Nueva Vizcaya and Agusan, and providing punishment therefor.

An act establishing and defining the legal rate of interest, and declaring the effect of usury upon contracts, and for other purposes, in the Moro Province, the Mountain Province, and the Provinces of Agusan and Nueva Vizcaya.

An act providing certain special proceedings for the settlement and adjudication of land titles in the Moro Province, the Mountain Province, the Province of Agusan, and the Province of Nueva Vizcaya.

An act amending act numbered two thousand and sixty-seven, entitled "An act providing for the investment of a portion of the accretions to the gold-standard fund in loans to the provinces and municipalities in the territory inhabited by Moros or other non-Christian tribes, for certain purposes, in securities authorized for the investment of funds of the Postal Savings Bank, and in interest-bearing bonds to assist in the construction of sugar centrals, and for other purposes," so as to fix the amount of the gold-standard fund created under act numbered nine hundred and thirty-eight, authorize the deposit of the amount of the excess so fixed to the credit of the general fund of the treasury, and authorize the investment of a portion of the said gold-standard fund.

An act authorizing the establishment of quarantines and regulating the movement of cattle within the territory under the exclusive legislative jurisdiction of the Philippine Commission.

An act authorizing the pasturing of horses, cattle, carabao, sheep, and goats on public lands in the Mountain Province, the Moro Province, Nueva Vizcaya, and Agusan.

An act appropriating funds for the construction of wireless telegraph stations in that part of the Philippine Islands inhabited by Moros or other non-Christian tribes, provided a like amount shall be appropriated by the Congress of the United States and made available for use in connection with the money herein appropriated.

AS A CHAMBER OF THE PHILIPPINE LEGISLATURE.

The second regular session of the Second Philippine Legislature convened on October 16, 1911, and continued in session until and including February 1, 1912. A special session was called by proclamation of the Governor General for the days February 2 to 6, 1912, inclusive.

These were the only sessions of the Legislature held during the fiscal year.

During these sessions there originated in the Commission as a chamber of the Philippine Legislature 69 bills, of which 52 were passed by the Commission and sent to the Assembly. During the same period there were considered by the Commission 181 bills which originated in the Assembly. The total number of bills finally agreed upon by both Houses and enacted into law was 86, of which 17 originated in the Commission and 69 in the Assembly. Of these laws the following are the more important:

An act to fix the amount of the gold-standard fund, created under act numbered nine hundred and thirty-eight, authorizing the deposit of the excess of the amount so fixed to the credit of the general fund of the treasury, and authorizing the investment of a portion of the said gold-standard fund.

An act to provide for the collection and apportionment between the insular, provincial and municipal governments of taxes paid by the grantees of franchises, their lessees, successors or assigns, on the gross earnings or receipts from the business covered by the law granting the franchise or any amendment thereof.

An act relating to contracts of personal service and advances thereunder, and providing punishment for certain offenses connected therewith.

An act amending act numbered eight hundred and seventeen by changing the method of appointment of locust boards and by defining the relation of the bureau of agriculture to the locust boards, and appropriating a sum of money for the purposes of said act, and for other purposes.

An act providing for the confinement of insane persons in Government hospitals or other institutions for the insane, and for the appointment of a board of physicians to inquire into the mental condition of persons alleged to be insane, when the evidence presented is not satisfactory to the court, or when there exists a reasonable doubt as to the condition of any patient confined in a hospital for the insane.

An act authorizing Mauro Prieto and associates to establish a mortgage bank under certain conditions.

An act providing for the apportionment and disposition of internal-revenue taxes collected in the Philippine Islands from July first, nineteen hundred and twelve.

An act concerning warehouse receipts.

An act to prevent the introduction into the Philippine Islands of plant diseases and epidemics.

An act to provide a system for the appropriation of public waters, and for the determining of existing rights thereto; for the public registration of all water rights; for the creation and use of water power; for investigations for and the construction, maintenance, and operation of irrigation systems by the Government of the Philippine Islands; for the repayment of money expended therefor; for the construction, maintenance, and operation of irrigation systems by private persons; for the inspection and regulation of all works pertaining to the use of water; and providing penalties for its violation; and for other purposes.

An act authorizing the granting of revocable licenses to construct and operate tramways on public roads, and for other purposes.

An act to regulate motor vehicle traffic in the Philippine Islands, to provide for the registration of motor vehicles and the licensing of operators, and to require all vehicles on highways to carry lights, and for other purposes.

An act creating a commission to secure, organize, and make an exhibit of Philippine products, manufactures, art, ethnology, and education at the Panama-Pacific International Exposition to be held at San Francisco, California, in the United States, in nineteen hundred and fifteen, making an appropriation therefor, and for other purposes.

An act to provide for the reorganization, government, and inspection of the municipal police of the municipalities or provinces and subprovinces organized under act numbered eighty-three.

The following are some of the important matters considered by the Legislature, but which failed of final passage:

An act providing certain special proceedings for the settlement and adjudication of land titles.

An act providing for the reorganization of the courts of first instance.

An act creating the bureau of land registration, and for other purposes.

An act authorizing the establishment of an Agricultural Bank under the guaranties authorized by the act of Congress of March fourth, nineteen hundred and seven.

An act defining habitual criminals and providing additional punishment for the same.

An act prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Philippine Islands, and providing punishment therefor.

An act authorizing the Governor General to sell the real property of the Government of the Philippine Islands known as the ice plant for a sum not less than two million pesos, to give to the purchaser a good and sufficient title to said property, and for other purposes.

An act to amend sections fifty-four and one hundred and fifty-two of act numbered fourteen hundred and fifty-nine, known as the "corporation law" (regarding insurance companies).

An act regulating the organization of life insurance corporations, defining their powers, fixing the duties of directors and other officers thereof, prescribing conditions under which said corporations may transact business, prescribing rules under which foreign life insurance corporations may transact business in these islands and repealing all acts or parts of acts in conflict or inconsistent with this act, and for other purposes.

An act creating the office of shipping commissioner, defining his duties, regulating the shipment and discharge of seamen in domestic vessels and the adjudication of wage disputes in certain cases.

An act further amending section twelve of act numbered one hundred and ninety, entitled "An act providing a Code of Procedure in Civil Actions and Special Proceedings in the Philippine Islands," as amended, by providing for the continuation of the Spanish language as the official language of the courts until the first day of January, nineteen hundred and seventeen, and for other purposes.

An act changing the penalty for the crimes of falsification of documents, as defined in chapters four and five of the Penal Code of the Philippine Islands.

An act on marriage and divorce.

An act providing for the organization of agricultural colonies at uninhabited points in the Philippine Islands under the direction of the bureau of labor and appropriating funds for that purpose.

An act to authorize the creation of rural associations subsidized by the government in each of the municipalities and townships of the Philippine Islands, for the purpose of fostering rural industries and agricultural production, creating for that purpose a special fund in the insular treasury that shall be derived chiefly from customs duties on imported rice, or, in default thereof, from the gold-standard fund, or from the general fund in the insular treasury.

An act prescribing the procedure in all cases of detention or arrest of male offenders under twenty-one years and of female offenders under twenty-five years of age, as well as the form of trial and criminal proceedings against them; containing also provisions relative to the correction of minors rebellious to paternal authority and the detention or arrest of older persons.

An act making a reimbursable appropriation of one million pesos to aid in the establishment of banks in the Provinces and important municipalities of the Philippine Islands, under certain conditions and limitations, and for other purposes.

An act making appropriations for sundry expenses of the insular government for the fiscal year ending June thirtieth, nineteen hundred and thirteen, and other designated periods.

An act establishing and defining a legal rate of interest and declaring the effect of usury upon contracts.

An act making appropriations for public works.

The acts passed by the Commission and the Legislature during the fiscal year are numbered 2066 to 2187. Certified printed copies of all of these have heretofore been furnished.

The Legislature having failed to pass the appropriations for the current expenses of the government for the fiscal year 1913, section 7 of the act of Congress of July 1, 1902, became operative and the expenses necessary for the support of government are being paid in accordance with the provisions of said section.

COMMERCIAL DEVELOPMENT.

The year has been marked by a healthy advance in commerce throughout the islands. The value of imports and exports has amounted to ₱209,739,632, as compared with ₱179,224,702 for 1911,

an increase of 17 per cent. There has been a considerable growth in the value of domestic products exported, both in quantity and quality, yet the imports still show an excess over the exports of ₱8,460,288. Although the balance of trade is against the islands for the year, it is a large reduction from that of 1911, and if the extraordinary increase in the rice importations, amounting to ₱8,018,638, be not considered the imports and exports would be almost equal.

The increase in exports of ₱21,082,414 was largely due to copra. For the first time since American occupation copra has moved to the head of the list of exports and hemp has dropped to second position. Sugar and cigars retain about their same position. The following figures of the four principal exports in 1911 and 1912, showing the percentage of the total value of the exports, may be of interest:

Exports of 1911 and 1912.

	1911		1912	
	Value.	Per cent of the total value.	Value.	Per cent of the total value.
Hemp.....	₱32,282,680	40.58	₱32,567,020	32.36
Copra.....	19,798,914	24.9	33,029,498	32.8
Sugar.....	16,028,720	20.15	20,801,150	20.67
Cigars.....	3,401,424	4.27	5,320,122	5.29

While hemp fell in quantity it increased in value, showing a decrease in weight of 11,603 tons and an increase in value of ₱284,340.

The exports of sugar continue to increase, 161,783 tons valued at ₱18,285,666 having been exported as compared with 128,926 tons valued at ₱14,289,510 in 1911. Though this year shows an increase, it is entirely due to large shipments of the 1911 crop in the early part of the year and can not continue unless a better grade of sugar is offered to the markets of the world. During the last months of the fiscal year 1912 the Philippine market was stagnant, for in spite of a good crop, the sugar was practically all stored in Iloilo, and there was no demand for it. This state of affairs precipitated a crisis in our chief sugar district. The sugar-planting season had begun, the banks were unwilling to carry longer the farmers who had received advances on the sugar which was not yet sold, and refused to advance money on the coming crop until they had realized on the 1912 crop. The situation gradually became better, and at the present writing the crop has begun to move to the market. The reason for such a situation being possible is that the Philippine or "muscovado" sugar, which has but a low percentage of purity, is the last sugar that is bought by the American refineries. The Cuban, West Indian, and Louisiana crops, and the beet-root sugar are all preferred to the Philippine crop. We, therefore, have a market in America only when there is a lack of other available sugar, as occurred in the previous year. If the Filipino hacenderos desire to avail themselves of the American market and not to ruin the sugar industry in the islands, they must organize and construct, or encourage foreign capital to construct, modern sugar centrals where high-grade sugar, for which there is a practically unlimited market, can be manufactured.

The slump in the cigar trade with the United States, mentioned in the last report, seems to have ended, 71,973,000 cigars having been shipped to the United States as compared with 27,936,000 in 1911. With the cooperation of the Manila Tobacco Association, the collector of internal revenue has promulgated rules and regulations governing the shipment of cigars to America. These rules restrict the shipment of cigars so that only cigars of high-grade quality are placed on the market. The increasing demand for the Philippine cigar in the United States is the best evidence that these regulations are assisting the tobacco industry.

EVIDENCES OF COMMERCIAL AND FINANCIAL ACTIVITY.

The following figures are interesting as showing the increase in trade with the United States since the passage of the Payne tariff bill (1909), the increase in trade with other countries, and the increase in both business and trade during the same period:

Fiscal year.	Trade with foreign countries.	Trade with the United States.	Total trade.
1909	₱87, 772, 324	₱29, 905, 556	₱117, 677, 880
1910	94, 387, 348	59, 183, 832	153, 571, 180
1911	105, 959, 292	73, 265, 410	179, 224, 702
1912	126, 959, 188	82, 780, 444	209, 739, 632

Business of the Philippine Islands upon which is levied a tax of one-third of 1 per cent.

Fiscal year.	Amount of business.
1909	₱380, 408, 894
1910	457, 610, 200
1911	533, 650, 738
1912	574, 168, 706

These figures show a total increase in the three years of ₱189,501,874 in trade and ₱424,202,962 in business in the Philippine Islands. When the Payne tariff bill went into effect it was believed that there would be a marked decline in the customs receipts owing to the free American market which would tend to cut into the foreign markets, from which alone goods are received on which customs duties are paid. The contrary has proved to be the case. Customs receipts have advanced steadily the past three years, amounting to ₱16,572,147 in 1910, ₱17,357,620 in 1911, and ₱18,695,295 in 1912. Not only do the merchants import more and more from the free markets of the United States every year but with increasing prosperity the purchasing power of the people has become so much greater that they can afford to increase their purchases of foreign dutiable goods.

THE GOLD STANDARD FUND ACTS.

The advisability of a change in the gold-standard fund was mentioned in the last report of the Philippine Commission. This matter was brought to the attention of the Legislature by the message of the Governor General last October, and resulted in the passage of two acts, Nos. 2083 and 2088, which are known as the gold-standard fund acts. By Act No. 2083 the gold standard fund is fixed at a sum equal to 35 per cent of the money of the Philippine Islands in cir-

lation and available for that purpose, exclusive of the silver certificates in circulation protected by the gold reserve. It provides also that 50 per cent of the gold-standard fund thus constituted may, with the prior approval of the Governor General, be invested by the insular treasurer in loans, with interest at 3 per cent for provincial and municipal public works, for periods not exceeding 10 years, and that one-half of said 50 per cent may also, with the prior approval of the Governor General, be invested in loans, at 5 per cent interest, to the Manila Railroad Co. to assist in the construction of the lines in southern Luzon. Act No. 2088 makes similar provisions, the interest, however, on loans to the Manila Railroad Co. for lines in the Mountain Province being fixed at 4 per cent instead of 5.

By these acts ₱2,751,897.73 were at once transferred to the general fund of the treasury as cash available for appropriation and approximately ₱9,000,000 were made available for loans. Contracts were signed at once by the Governor General and the president of the Manila Railroad Co., insuring the speedy completion of the southern lines connecting Albay with Manila and the completion of the Baguio line from La Union to the capital of the subprovince of Benguet. By the end of the fiscal year ₱2,013,700 of this fund had been loaned to Provinces and municipalities and ₱200,000 to the Manila Railroad Co.

THE PORT OF MANILA AND THE PORT DISTRICT.

The increase of trade in the Philippine Islands during the past year has been noted in another portion of this report. If the islands are to get the full share of prosperity which the fertility of their soil and the abundance and variety of their natural resources warrant, everything must be done in the near future to make the transportation of freight to and from the islands as cheap as possible. It is of the utmost importance that the present hindrances to trade in the shape of costly delays of shipping, frequent rehandling of products, etc., be eradicated. The government, in the past, has done much to remedy these defects, not only in the port of Manila, but in the other two important ports of the islands, Cebu and Iloilo. Cebu is now unique among the island ports in having a wharf at which ocean-going vessels can tie up with railroad connection at the water's edge. If the sugar industry in the Negros and Iloilo districts is to bring to the islands the prosperity which it warrants, the port of Iloilo must be improved and modern wharfs must be placed there at which ocean-going vessels can dock and the sugar can be shipped without the necessity of lightering.

The most important problem, however, is the improvement of the port of Manila, as Manila is by far the largest export and import port in the islands, 77 per cent of the islands' trade going through it each year. On the improvement of the port, ₱11,569,677 have already been spent in the construction of breakwaters, and the dredging to the depth of 30 feet of a deep-water harbor for the world's trade. The trade of the islands, however, is increasing far beyond the facilities which the port of Manila at present provides, and in the near future it will be of vital importance to have a further area of harbor dredged so that more vessels of deep draft can anchor there.

The filled-in land known as the port district offers to the port of Manila an unequalled chance of giving to the ships of the world the best facilities in the Far East for quick and cheap transshipment of goods. Two wharfs have already been constructed by the Government and a start has been made on warehouse construction on the filled-in land. At first it was found necessary to compel ships to come to the wharfs. Within the past year, however, they have found the advantages offered so great that it is no longer a question of compelling ships to load or unload at them but a question of which ships shall have the privilege of the use of these wharfs. There is a vital necessity for the construction of more wharfs to handle the traffic. In the past year the movement of merchants toward the port district has been marked. Previous to the fiscal year 1912 but 2 blocks available for lease to the public had been taken up; 16 blocks were reserved for the military and Marine Corps and 7 blocks have been reserved for the customhouse and other government buildings. In the past year 22 blocks have been disposed of to the merchants of Manila. In the near future the Manila Railroad will have constructed its lines across the Pasig River, into the port district and onto the wharfs. The electric railroad will circle the district and provide cheap freight distribution throughout the city. With the railroad lines completed to Albay in the south and to La Union in the north, tapping the hemp districts of Albay and Ambos Camarines, the copra districts of Tayabas and La Laguna, the rice districts of the north and the sugar districts of Pampanga, produce of the islands may be moved from the place of production to the ship's sides in Manila without break of bulk, with through bill of lading and with no rehandling. This will mean a tremendous decrease in the cost of shipping which will benefit the islands and which should be followed by a large increase in production.

In connection with the improvement of the port of Manila, the interisland shipping trade should not be lost sight of and large improvements are necessary in the lower Pasig River and in the esteros throughout the city. To obtain the means of bringing about these most important improvements, authority to issue bonds will be necessary and it is hoped that Congress in its next session will authorize a further issuance of bonds for permanent improvements in the islands for these and other purposes.

RECOMMENDATIONS.

The commission wishes to make the following recommendations, most of which have been repeatedly urged in previous reports:

BONDED INDEBTEDNESS.

First. That the Philippine Legislature be empowered to authorize the issuance of \$15,000,000 worth of bonds, to be used for public works, permanent improvements, and cadastral surveys, with the provision that not more than \$2,500,000 thereof shall be sold in any one year. The argument for this recommendation may be found in the report of the Commission for the fiscal year 1911.

SCOUTS AND CONSTABULARY.

Second. That Congress, by appropriate legislation, authorize the consolidation of the Philippine Scouts and constabulary into a single homogeneous native force under control of the insular government, toward the maintenance of which the United States would pay a portion of the money now expended for maintenance of the scout organization.

RAILROAD BONDS.

Third. That Congress amend section 4 of the act of Congress approved February 6, 1905, dealing with the government guaranty of bonds issued against the construction of railroads in the Philippine Islands so that contracts of guaranty thereby authorized may be executed upon satisfactory proof of the construction of the railroad in sections of not less than 10 continuous kilometers each instead of 20 continuous miles each, as now provided.

The arguments for the following may be found in the report of the Commission for the fiscal year 1909:

EDUCATION.

Fourth. That if Congress is willing to assist, so as to expedite the accomplishment of our ends in the Philippine Islands, an annual appropriation of \$2,000,000 be given, to be added to the present insular appropriation for education.

MINING LAW.

Fifth. That the law in regard to mining be amended in order to admit the filing of more than one mining claim upon a lode by the same individual or corporation to facilitate their taking up claims for placer mines or mines under the water, and to extend the time for development of coal claims to three years.

LAND LAW.

Sixth. That the amount of land which may be acquired, owned, and used for agricultural purposes in the Philippine Islands by any corporation be extended to 6,000 hectares.

HOMESTEADS.

Seventh. That the amount of land allowed to be taken up by any one person under the homestead law be increased from 16 to 50 hectares; that the amount that individuals may purchase from the government be increased to 500 hectares; and that the amount allowed to be sold or conveyed to corporations or associations of persons be increased from 1,024 hectares to 6,000 hectares.

LAND TITLES.

Eighth. That provision be made for the government to give free titles under proper restrictions to people who have been in undisputed occupation of land for five years previous to the year 1912.

CONSTRUCTION OF PUBLIC WORKS BY MUNICIPALITIES.

Ninth. That section 66 of the act of Congress of July 1, 1902, as amended, be further amended so as to increase the kinds of public works which may be undertaken by municipalities and to authorize the Philippine government by general legislation to empower municipalities to incur indebtedness for such purposes.

QUALIFICATIONS OF ELECTORS FOR DELEGATES.

Tenth. That section 7, congressional act of July 1, 1902, be amended to provide that qualifications of electors in election of Assembly Delegates shall be the same as those now or hereafter required for municipal electors by Philippine laws, and that no person shall be eligible to election as Assembly Delegate unless he has the qualifications prescribed by law for municipal officers, is a resident of his election district, owes allegiance to the United States, and is 25 years of age.

Information regarding many matters of general interest, such as have been discussed in previous reports of the Commission, will be found in the reports to the Commission of the Governor General and the several secretaries of departments.

Respectfully submitted.

NEWTON W. GILBERT,
Acting President.

DEAN C. WORCESTER,
JOSÉ R. DE LUZURIAGA,
GREGORIO ARANETA,
JUAN SUMULONG,
FRANK A. BRANAGAN,
Members.

To the honorable the SECRETARY OF WAR,
Washington, D. C.

REPORT OF THE GOVERNOR GENERAL.

REPORT OF THE GOVERNOR GENERAL.

MANILA, *October 1, 1912.*

GENTLEMEN: I have the honor to present to the Philippine Commission the following report of the Governor General. This report is for the fiscal year 1912, which terminated June 30, 1912, except as otherwise stated.

On March 15, 1912, Gov. Gen. W. Cameron Forbes, having been granted leave for six months, departed for the United States and the undersigned assumed the duties of this office as Acting Governor General on that date. Therefore, during more than eight months of the period covered by this report Gov. Gen. Forbes personally performed the duties of the office, and as Acting Governor General I have generally continued his policies.

SECOND PHILIPPINE LEGISLATURE.

The second regular session of the Second Legislature was held at Manila beginning October 16, 1911, and ending February 1, 1912. A special session was convened at Manila pursuant to the proclamation by the Governor General on February 2 and remained in session until midnight February 6.

FINANCES.

The year was begun with ₱447,332.37 cash available for appropriation and ₱593,500 which, although appropriated from funds of the previous fiscal year for permanent improvements, was appropriated subject to release by the Governor General. Therefore the latter sum which had not been released was considered as actual cash available in the treasury and a portion of the reserve, making in all the sum of ₱1,040,832.37 cash reserve.

The estimated resources for the year were ₱26,326,989.31 and the estimated liabilities ₱25,406,949.55. Of these liabilities ₱19,468,449.11 were for current expenses and ₱2,542,452 for permanent improvements. In all the grand sum of ₱6,501,192.42 was appropriated by the Legislature for permanent improvements from the funds available for the fiscal year 1912. As it was apparent that the finances of the government could not stand such a large appropriation, ₱4,854,500 of this sum was appropriated subject to the release of the Governor General. During the year the receipts from the customs and internal revenue exceeded the estimates, and ₱3,397,027.65 were transferred into the general fund of the treasury and made available for expenditure by the gold standard fund act. At the end of the year, therefore, ₱31,247,673.39 represented the revenues and receipts of the government, an increase of ₱6,011,016.45 over the estimates.

Expenditures.—The total expenditures of the insular government for the fiscal year 1912 were ₱30,208,761.50, as compared with

₱28,505,721.41 of the previous fiscal year, an increase of ₱1,703,040.09. Of this total amount, ₱29,786,832.55 was from the general revenue funds, as compared with ₱27,988,227.38 of the previous year, an increase of ₱1,798,605.17, and ₱421,928.95 from the bond fund, as compared with ₱517,494.03 of the year before, a decrease of ₱95,565.08.

Current expenses.—The current expenses of the insular government for administration, operation, and maintenance were ₱18,768,317.27, as compared with ₱17,143,635.86 of the prior year, an increase of ₱1,624,681.41. This increase was due in large part to the increase in expenses incident to the opening of the general hospital, the salaries of the justices of the peace, the rinderpest campaign, and the purchase of rice, which accounts for ₱1,119,493.

Aid to provinces, municipalities, and cities.—During the fiscal year the insular government gave aid and contributions to provinces, municipalities, and cities, for their general administration, in the amount of ₱1,654,830.75, as compared with ₱1,664,727.03 of the previous year, a decrease of ₱9,896.28.

Interest and sinking fund payments.—The fixed charges of the insular government on account of its bonded debt, being interest on the friar lands and public works bonds and the allotments to the sinking funds, were ₱900,773.97, as compared with ₱1,102,782.08 of the year before, a decrease of ₱202,008.11; ₱141,430.85 of this decrease is accounted for by a reimbursement payment during the fiscal year 1911 to the friar lands bond sinking fund.

Interest on railroad bonds.—Under guaranty contracts the insular government paid the net sum of ₱525,422.69 on railroad bonds, as against ₱766,946.65 for the year before, a decrease of ₱241,523.96, which is accounted for by repayments made by the companies during the last year.

Permanent improvements.—During the fiscal year the total amount of expenditures for permanent improvements was ₱8,359,416.82, as compared with ₱7,827,629.79 of the prior fiscal year, an increase of ₱531,787.03. Of this amount, ₱7,937,487.87 was from the general revenue funds, as against ₱7,310,135.76 for the previous year, an increase of ₱627,352.11, and ₱421,928.95 from the public works bond fund, as compared with ₱517,494.03 of the year before, a decrease of ₱95,565.08. Of the total amount from revenue, ₱7,937,487.87, the sum of ₱4,259,378.52 was on account of insular outlays, and ₱3,678,109.35 were allotted to provinces and municipalities.

Statement of receipts and expenditures, fiscal year 1912, and resources at the beginning and end of the year.

Resources, July 1, 1911:

Cash on hand available for appropriation.....	₱447, 332. 37	
Appropriated from revenue funds, fiscal year 1911, for permanent improvements, not yet released by the Governor General.....	593, 500. 00	₱1, 040, 832. 37
Appropriated from revenue and available.....		9, 926, 931. 34
Cash on hand appropriated from proceeds bond sale.....		701, 487. 08
Supplies on hand.....		5, 510, 862. 15
Total resources, July 1, 1911.....		<u>17, 180, 112. 94</u>

Revenues and receipts:

Customs.....	₱17,816,247.28
Internal revenue.....	9,459,421.33
All other receipts.....	3,972,004.78
Total revenues and receipts.....	31,247,673.39

Expenditures:

Current expenses of the insular government.....	18,768,317.27
Aid to cities, provinces, and municipalities.....	1,654,830.75
Interest and sinking fund payments, bonded debt.....	900,773.97
Interest on railroad bonds, guaranty contracts.....	525,422.69
Permanent improvements—	
Insular.....	₱4,259,378.52
Allotments to provinces and municipalities..	3,678,109.35
Total from general fund revenues.....	7,937,487.87
Insular from bond fund.....	421,928.95
Total for permanent improvements.....	8,359,416.82
Total expenditures.....	30,208,761.50

Transfers and adjustments of supplies:

Supplies transferred to equipment (bureau of education).....	₱1,212,794.18
Supplies dropped from account.....	40,191.13
	1,252,985.31

Resources, June 30, 1912:

Cash on hand available for appropriation.....	1,404,689.95
Appropriated from revenue funds, fiscal years 1911 and 1912, for permanent improvements, not yet released by the Governor General.....	1,681,038.88
	3,085,728.83
Appropriated from revenue and available.....	8,286,064.50
Cash on hand appropriated from proceeds bond sale.....	279,558.13
Supplies on hand.....	5,314,688.06
Total resources, June 30, 1912.....	16,966,039.52

ALLOTMENT FOR CURRENT EXPENSES OF THE GOVERNMENT.

The Legislature having failed to make provision for an appropriation bill for the current expenses of the government for the fiscal year 1912, it was found necessary to rely on the provisions contained in section 7 of the act of Congress of July 1, 1902, which states "that if, at the termination of any session, the appropriations necessary for the support of government shall not have been made, an amount equal to the sums appropriated in the last appropriation bills for such purposes shall be deemed to be appropriated; and until the Legislature shall act in such behalf the treasurer may, with the advice of the Governor, make the payments necessary for the purposes aforesaid."

The form of action to be taken by the Governor General in this contingency was one on which there were different opinions. As the Governor General did not believe it necessary to change the allotments for current expenses of the different government entities from those provided in the previous appropriation bill, Act No. 1989, at first it was deemed sufficient to state to the heads of the different departments and to the insular auditor and treasurer that each bureau would receive for the current year the same amount of money as had

been provided for it in the previous appropriation bill. The auditor was later of the opinion that more formal action on the part of the Governor General was necessary, therefore a printed form of letter of advice to the insular treasurer was published on December 18, 1911. This embodied practically the same provisions as had Act No. 1989.

Some slight changes which had been found necessary during the year in authorized personnel and in the allotments for the different bureaus were made. Some new positions had been provided, but these were either in accordance with the provisions of the civil-service act or under the general authority given by the act of Congress of July 1, 1902. Due to a misunderstanding of the instructions of the Governor General, certain provisions of the appropriation bill in connection with the Assembly and some minor matters which in the opinion of those preparing the advice were of a purely legislative nature and could not properly be a part of the administrative instructions, were omitted from this first letter. This was changed, however, when it was brought to the attention of the Governor General and an amended letter of advice was finally promulgated.

Last year at its regular and special sessions the Legislature again failed to provide an appropriation bill for the current expenses of the Government for the fiscal year 1913. The undersigned, therefore, on July 24, 1912, signed a letter of advice for the fiscal year 1913 on the same general lines as the previous one, but differing in the amounts allotted to the different bureaus and in some minor details. This action of the Chief Executive was taken on the theory that in case the Legislature fails to appropriate for the current expenses of the government a lump sum for the support of government is automatically reappropriated under the provisions of section 7 of the act of Congress of July 1, 1902, at the beginning of each fiscal year for which the Legislature has failed to provide; and that this lump sum may be and should be allotted in accordance with the judgment of the Governor General for the support of the government for that year.

CONDITION OF PUBLIC ORDER.

Conditions of public order have been discussed in the report of the secretary of commerce and police in detail and it is sufficient to say that peace conditions throughout the islands are and have been satisfactory. As mentioned in the last report, the last bandit of any note, Otoy, was killed in Samar on October 1.

Owing to frequent cases of so-called "juramentado" in Jolo and the unsettled condition among the peaceful Moros in the Lanao district, caused by the presence of a considerable number of armed outlaws on the western side of the lake, a general order of disarmament was issued by the provincial authorities last September. This policy was carried out with but little bloodshed, though it was the cause of some disorder in both regions in the autumn of 1911 and the early part of 1912. The situation was ably handled by the governor of the Moro Province with the aid of the United States Army and the cooperation of the small detachments of constabulary in the locality. It is hoped that this will have a lasting effect on the political and social conditions in the Moro Province, for with the suppression of armed outlaws and the dying down of the custom of

carrying fighting weapons it is believed that the cutting affrays and attacks which heretofore have been a marked feature of the situation will gradually disappear and that it will be more easy for the authorities to protect those who desire to follow the pursuits of peace which alone can bring real development to these people.

STRIKES.

Labor conditions throughout the islands appear to be about the same as noted in the last report; but 20 small strikes were reported during the past year, 16 of which occurred in Manila. They were of short duration, were not accompanied by disorder, and did not seriously affect economic conditions. In 16 of them the emoloyers acceded to the demands of the striking employees. The bureau of labor is doing important work with its free employment agencies in Manila, Cebu, and Iloilo in investigating labor conditions and compiling statistics.

HEALTH CONDITIONS.

Owing to unsettled conditions in China there has never been a year since American occupation when the islands were more seriously threatened by invasion of contagious disease. The unusual drought also gave a favorable opportunity for an outbreak. Yet health conditions have been better than ever before. Cholera has been generally absent; smallpox, through the vigorous vaccination campaign of the health officers, has been largely reduced, and but two cases of plague were reported, occurring at the end of the fiscal year. This record, of which we should justly be proud, is due in great part to the efficient quarantine and the well-organized district health service.

The General Hospital at Manila has continued its good work, a measure of which may be gauged by the fact that the out-patient department treated more than 25,000 individual patients during the year. The Southern Islands Hospital at Cebu has been completed but has not been opened, due to the last Legislature failing to provide funds for its operation and maintenance. It is hoped that this will be remedied in the coming session. At present the government either administers or pays for beds in the railroad hospitals in Cebu and Iloilo. In the Mountain Province a fine hospital, with dispensaries in the near-by districts, has been opened and is doing much good.

Legislation has been passed looking to the organization of a municipal health service. The demand for better water by drilling artesian wells and constructing municipal water systems continues to gain strength. Nearly 700 successful wells have already been drilled, and it is interesting to note the decreased mortality that follows this pure-water movement.

The work of the Antituberculosis Society continues to increase. A number of free dispensaries have been opened in Manila; a system for house inspection and district nursing has been organized, and the society's sanitarium at San Juan del Monte has been successfully maintained throughout the year. This provides for incipient cases. It is hoped that in the next year a hospital for advanced cases may be constructed and in operation near Laguna de Bay. This can be done if the Legislature will assume the burden of operation.

The collection and segregation of lepers continues; and the results of the study of beriberi and preventative measures against this disease has confirmed in a startling way the polished rice theory mentioned in the last report. One of the greatest fields in the world for medical research is offered by the Culion leper colony. There has probably never been a better chance to study this disease and to discover some cure for this affliction that is so general and so feared in this part of the world. Since the leper colony was founded in 1906, almost 7,000 lepers have been collected. But little is known of the cause and history of this disease, and it would be of lasting benefit to the human race if the necessary funds could be provided and successful investigations of this question by competent scientists were made.

At the last session of the Legislature, Act No. 2122 was passed, which for the first time makes some provision for the care and treatment of the insane. It is estimated that there are approximately 4,252 of these unfortunates in the islands. The only asylum where they can be treated with modern methods is the hospital at San Lazaro, Manila. There is room for only 350 patients there. An appropriation is particularly needed for the care of the insane and for carrying out the provisions of this act. At present the vast majority must be either cared for in the homes of their families or in the provincial jails, where there are no facilities for giving them proper treatment. It is believed that this problem is one which should occupy the close study and attention of the government in the future

RICE SHORTAGE.

The rice situation was mentioned in the last report of the Governor General. In brief, a general rice shortage throughout the Orient coincided with the partial crop failure in the Philippine Islands. The price of rice rose rapidly until in September, 1911, it reached a point which was causing distress and danger of disorder in the more thickly settled portions of the islands. The Governor General appointed a committee of officials and business men with the secretary of finance and justice as chairman, and on their advice authorized the bureau of supply to purchase a large amount of rice from Saigon and Rangoon. Thereafter, wherever it appeared necessary, the government controlled the price of this important food staple in the islands by placing on sale in the public markets government rice at a reasonable price. This was handled in such a way that the rice could only be bought by actual consumers in small quantities. On October 19 the Legislature, by Act No. 2076, took cognizance of the situation and in effect ratified the course adopted by the Governor General and on January 4, 1912, by joint resolution, provided for a select joint legislative committee to investigate and to report with recommendations on the present and future food situation. On January 22 the Chief Executive, in a message to the Legislature, recommended legislation to encourage the diversification of crops, the generalization among the agricultural classes of household industries, and water control for protection against floods and for irrigation. The joint committee reported on January 25, recommending an increase in the annual appropriation for roads and bridges, loans from the general government to provinces and municipalities, legislation authorizing

the Governor General to purchase rice in order to prevent an immoderate increase in price, the passage of the irrigation bill, and encouragement in the provinces of the diversification of crops. As a direct result, on February 6 the Legislature passed Act No. 2152, the irrigation law, and Act No. 2155, authorizing the Governor General to take steps to prevent the price of rice rising above a reasonable rate and appropriating such sums as might reasonably be necessary to carry into effect the purpose of the act. During the fiscal year, under the authority of the latter act, the government imported 13,272 tons of rice at a cost of ₱1,950,254. Of this amount 12,233 tons were sold for ₱1,387,623, causing a loss to the government in actual cash of ₱453,710, inclusive of customs duties. This cash loss is really considered a gain to the country. For every cavan of government rice sold it is estimated that 4 cavans of private rice were sold. By keeping the price of rice down to a normal limit, which was anywhere from ₱2 to ₱6 per cavan under the price to which it would have risen had the government not intervened, there was a saving of approximately ₱15 on every 5 cavans of rice bought by the people. When this is taken into consideration, it can be seen that although the government lost cash on the deal, the taxpayers gained many times this sum by being able to buy rice at a reasonable price. No rice was bought after March, 1912, until June, 1912, when it appearing that conditions rivaling those of last September were bound to recur the government started buying rice and by the end of the year had purchased 1,853 tons at ₱233,996, which is included in the total for the year. Understanding the danger of the government's interfering with normal trade conditions and the damage that might be done to bona fide rice merchants, it is the policy of the government to enter the rice market only to prevent dealers from attempting to take advantage of the people by charging undue prices for rice, and to import sufficient amounts of rice to satisfy the demands of the people in case the dealers fail to import this food staple, and thus to assist in seeing that a sufficient food supply is maintained.

The administrative control of the rice situation has from the beginning been handled by the executive secretary, who has kept in touch with the local needs through the provincial and municipal treasurers, and a more extensive discussion of the problem is contained in his report.

RAILROADS.

Railroad construction has progressed steadily during the year in the island of Luzon. Practically no construction was done on the lines of the Philippine Railway in the Visayan Islands, and these accounts will be closed by the beginning of the calendar year. At the last session of the Legislature a bill was proposed relieving the Philippine Railway from constructing the lines on the island of Negros. This was not passed, however, and unless the Legislature grants this request of the company it will have to construct 122.9 kilometers of railroad on this island by the year 1914.

Under the provisions of Act No. 1905 construction of the Manila Railroad has been progressing rapidly. This progress has been materially assisted by the passage of the gold-standard fund acts and the contracts which were signed between the railroad and the gov-

ernment on January 22, 1912, which make necessary the completion of the railroad from La Union to Baguio within two and one-half years.

During the year 70 kilometers of track were laid; on the northern lines 16.4 kilometers of line were opened and on the southern 88.7 kilometers were opened.

After some study a good deep-water harbor capable of development was found on the eastern coast. This port, which is near Lopez, Tayabas, has been named Hondagua, and is the center from which railroad construction is being pushed to the north and south. Construction will recommence in Albay in the early months of the coming calendar year.

The Manila Railroad has now constructed 483 kilometers of its northern line, leaving 89.5 kilometers yet to build. Of the southern lines, 259.1 kilometers have been constructed, with 475.3 yet to build.

IRRIGATION AND ROADS.

Among the important measures passed at the last session of the Legislature was Act No. 2152, which gives the islands a method of determining water rights and the government a means of successfully inaugurating irrigation works. The irrigation division of the bureau of public works has been reorganized under the direction of Mr. Gorton, formerly of the United States Reclamation Service. Much work has been done in investigations and preliminary plans for irrigation systems in Luzon and the southern islands, though no construction on a big scale has been started with the exception of the San Miguel, Tarlac, irrigation system. It is expected that in the coming fiscal year a great stride will be made in this important government activity. The progress in irrigation during 1912 was retarded by the necessity of returning the continuing annual appropriation of ₱750,000 to the general fund of the treasury.

The general progress in road construction and maintenance noted in the last report has continued, the figures being shown in another portion of this report.

LAND REGISTRATION.

Although fair results have been obtained in the general cadastral surveys in Cebu and Pangasinan, made under the provisions of section 61 of the public land act, No. 926, the survey and settlement of titles in Zamboanga, under the general cadastral survey law, Act No. 2075, passed by the Commission in 1911, has proved beyond a shadow of a doubt the wisdom of this act.

In this survey, in a period of little over two months, the titles to over 2,000 parcels of land valued at almost ₱2,000,000, were fixed by the court of land registration. This was done at a minimum cost to the people. The cost was apportioned according to the land values so that to the poor people whose lots were small it ran as low as ₱2.50 including the certificate; this with the privilege of paying in five equal annual installments, bringing the cost of the general cadastral survey within the reach of all. The cost of the most valuable parcel under this apportionment was only ₱16. The benefits thus coming to the inhabitants of the Mountain and Moro

Provinces should be extended to the remaining provinces in the islands by the Legislature. The recommendations made by the Governor General in the last annual report are repeated and heartily concurred in by the undersigned.

GENERAL AGRICULTURE, RINDERPEST, AND LOCUSTS.

The improvement in the general agricultural situation has been retarded by the prolonged drouth through almost the entire archipelago, which occurred from the end of September until the end of the fiscal year. This seriously affected the rice crop and to a lesser degree the corn crop in the southern islands. In Cebu there have been examples of localities where four and five plantings of corn were made only to be killed by lack of rain, worms, and finally the locusts.

The situation has been relieved in part by planting different sorts of food crops. The shortage and high price of rice in the early months of the fiscal year led to the government's making every effort to induce the people to plant other crops and has resulted in a notable display of individual initiative and resourcefulness. By teaching the people not to rely on one crop or one line of endeavor for their livelihood, but to diversify their crops and to engage in household industries, it is hoped that in the future if one crop is greatly damaged the people will still have other crops and other means of livelihood with which they can secure money to buy the necessities of life.

At the end of the long dry season great swarms of locusts appeared, especially in the southern islands. The locust question having been brought to the consideration of the Legislature by the Governor General, Act No. 2121 was passed providing means for combatting this pest by the appointment of provincial locust boards, by making an appropriation for the fight, and by placing the general management and leadership of it in the hands of the director of agriculture. Provinces requesting assistance from the general government have been furnished funds, and it is believed that the fight has been more successful than in previous years. It is the opinion of the undersigned that the plague of locusts can never successfully be handled until methods are found of exterminating the locusts in their breeding places.

The rinderpest situation has improved and the quarantine policy inaugurated by the bureau of agriculture has been consistently followed throughout the year. After due consideration it had been decided by the officials in charge that only by means of concentrated quarantine could the rinderpest situation be relieved. By concentrated quarantine is meant a port quarantine to prevent the disease entering the islands from outside and a local quarantine of infected districts until the disease is eradicated. This system involves some hardship on the people and to a certain extent cripples agriculture and commerce by preventing the free movement of animals between the provinces. The government has endeavored to get the co-operation of the municipal and provincial governments and of the farmers and has succeeded to a large extent. With the aid of the scouts, placed at the disposal of the government by the commanding general, strict quarantines have been maintained in the infected districts. A quarantine fence has been established between the hills and the coast, cutting off from the south the provinces north of Pan-

gasinan. Pangasinan has been cleaned and the quarantine has slowly fought its way south through the provinces of Nueva Ecija, Tarlac, Pampanga, and Bulacan. That a measure of success has been achieved is proved by the figures which show a reduction of 47 per cent in the number of municipalities infected from 64 to 34. The number of reported deaths of carabao and cattle from rinderpest for the year was approximately 3,000, or one-quarter of 1 per cent of all the animals, while in 1902, 625,000 deaths, or about 43 per cent of the animals existing in the islands, were reported. A quarantine against Indo-China and Hongkong has been maintained throughout the year. Practically every time a shipment was allowed in the islands infection resulted. Cattle from Indo-China and Hongkong can now be landed only at Manila, after a three months' quarantine. This measure has been deemed necessary in spite of the constant protests of cattle importers. It is thought that the protection of over 1,000,000 animals now in the islands is of greater importance than further importations.

EDUCATION.

The progress of education in the islands noted in the last report has continued to be satisfactory. Owing to the fact that there was no increase in the annual appropriation of the bureau of education and the necessity of increasing the salaries of those teachers who had by long and continued service earned a promotion it was found necessary to close some of the smaller primary schools throughout the islands. While this is to be regretted, it is unavoidable unless more funds can be allotted for education. This explains in some measure the decrease in registration of pupils for the year. It should be noted however, that the ratio of attendance to the registration was considerably higher than the previous year, and this is considered to be a favorable sign.

The practical agricultural and industrial lines of training, in which the bureau of education is putting a great part of its energy, continue to improve and to become more effective. The government aims to give a boy or girl an industrial education which will be of practical benefit to him in taking up his life work after leaving school.

The opening of a school for household industry in Manila, which was made possible by the passage of Act No. 2110, should also be noted. The course in this school is short, and selected women from each province are sent at the cost of the government to learn certain household industries and are then expected to return to their homes and to start centers of these industries in the provinces. This, it is hoped, is a step in advance in assisting the general prosperity of the Filipino people.

UNIVERSITY OF THE PHILIPPINES.

The university has completed its first year of actual operation, President Bartlett having assumed office June 1, 1911. The year has been mainly one of organization and of laying the foundations of the institution on the broad lines which are necessary if it is to fulfill its purpose.

It is believed that the university has a wide field of usefulness before it, not only in the Philippine Islands but in the Orient. When

one considers what changes the year has brought in the Far East, and particularly in China, this opportunity becomes even more apparent. Toward the end of the year many requests were received from China and other countries for the admission of foreign students. It is true that already there have been established several universities in China, and the English University of Hongkong for Chinese students offers modern educational advantages. It is believed, however, that the University of the Philippines affords exceptional opportunities to the Chinese student, for in this country are being solved the very problems which he will have to meet in his own country, and the expense of sending students to the University of the Philippines is very much less than the cost of a college education in America or in Europe. The board of regents has considered this question, and realizes the value to the Filipino people of educating here men who perhaps in a few years will be of great influence in the development of a new China. Yet in these days, when it is not possible to do all that we desire for our own youth, it has seemed wise, when we can make room for them at all, to charge foreign students the actual cost of their instruction.

Another problem in connection with the growth of the university is the development of a Filipino faculty. At the beginning it has been found necessary to choose the members of the faculty for the most part from Americans. It is believed, however, that it will be for the best interests of the university to have as many Filipinos in the faculty as possible and that under the law providing for traveling scholarships, whereby picked graduates of the university can study abroad and return with special knowledge and experience which will enable them to teach the Filipino youth to advantage, this can be accomplished.

One of the important fields of activity which the university is entering and for which it has exceptional opportunities is that of the study of tropical medicine and public health. Two courses for graduate study in these subjects will be opened at the beginning of the calendar year and will offer a unique chance of investigation in these important lines of medical endeavor.

The total registration of students in the university, including the school of fine arts, was 1,400 as compared with 1,220 last year, and it is believed that a similar increase may be expected in the coming year.

At the graduation exercises 30 degrees of graduates in course were given. Ten provinces were represented in the graduating class of the college of liberal arts, and students from all provinces in the islands are studying in the colleges of agriculture and forestry, showing that the university is already beginning to fulfill its mission as the University of the Philippines.

The first class that has completed the entire course of the medical school was graduated this year, nine degrees having been conferred, among the recipients of which was the first Filipino woman to receive a degree of M. D. An honorary degree was bestowed on Father José Algue in recognition of his eminence in science and his distinguished and loyal service to the Government of the Philippine Islands.

One of the immediate problems which the university authorities must face is that of providing adequate buildings for the students. One building is now being erected at a cost of ₱250,000, but it is hoped

that in the near future, either by gift or by appropriation by the Legislature, further provisions can be made for this vital necessity of the institution.

JUSTICE.

Matters have progressed steadily in the administration of justice. No changes were made by the Legislature in the machinery of justice, and the new system of appointing justices of the peace by examination and on a salary basis has been tried out this year. It is believed that this will work satisfactorily and that in time but a small annual appropriation will be needed to administer these courts.

The great delays which occur in bringing appealed criminal cases to trial and final settlement in the Supreme Court have been brought to the attention of the undersigned. Oftentimes individuals have had to wait as detention prisoners in Bilibid Prison from five months to two years before their cases have been finally decided by the highest tribunal in the islands. This matter was studied and has been found to be due to a number of causes, most of which it has been possible to remedy.

USE OF THE ENGLISH LANGUAGE.

In spite of the fact that it is admitted to be of vital importance to progress and a closer union among the various peoples of the islands that all should be given a chance and encouraged to have a common language, a medium of communication among themselves and with the outside world; in spite of the fact that English seemed to offer the best solution of this problem, the objections to the establishment of English as the official language have been continued on the part of many of the adult and more influential Filipinos. The Government has spent millions on education in English in the primary and secondary schools; the service now generally uses English, yet antagonism is still shown by those who speak Spanish only.

During the last session of the Legislature the Assembly passed a bill postponing the use of English as the official language of the courts until January 1, 1917. The adoption of English as the official language had already been postponed several times from the original date, January 1, 1906, to January 1, 1913. When it was decided to make English the official language the enthusiasm for this study among the adult Filipinos was marked, but it has become less and less with each postponement until a very general apathy has resulted in the past few years. It is believed that a further postponement will do no good, but will tend only to discourage any further study of the English language by Filipinos. The Commission therefore amended the bill, leaving the date unchanged, but leaving it to the discretion of the courts whether or not the record should be made in the Spanish language, allowing any party or counsel to examine or cross-examine witnesses or make an oral argument in Spanish, permitting any party to submit application, pleading, or brief in Spanish, and in cases where all the parties or counsel so stipulate, in writing, allowing the proceedings to be conducted in Spanish. This amendment to the Assembly bill failed in conference, so English remains the official language of the courts after January 1, 1913.

In furtherance of the general scheme of encouraging the use of the English language in the service an executive order was issued August 8 1912, the substance of which is as follows:

It is required of officers and employees under the administrative control of the Chief Executive or any of the executive departments: That whenever possible the minutes of the meetings of provincial boards and municipal councils be kept in English; that all official correspondence, whether to Government officials or to private individuals, be written in English, and that in making appointments or promotions in the service preference be given to persons having a sufficient knowledge of the English language to enable them to carry on correspondence in English. As it is not desired to make these requirements absolute in cases where it is not practicable to carry them out, the executive secretary is empowered to use his discretion in the modification of them where necessary upon application.

It is hoped by these means a further step in advance toward the solution of this important problem will be taken. It is believed that hearty cooperation from all will be obtained when the people realize that a common language is necessary before they can hope to have a government of their own which will not depend upon the will of a small class of educated men.

PUBLICITY.

Act No. 2058 of the Legislature appropriated ₱50,000 for advertising Philippine products and interests in the United States, on condition that only so much of that sum would be expended as should equal an amount contributed for the same purpose by private persons interested in the development of the islands. To carry out the intent of this act a publicity committee was suggested by the Governor General, two members of which were to be appointed by him and two by the Manila Merchants' Association, all expenditures, however, to be approved by the Governor General. On October 31, 1911, Mr. D. M. Carman and Dr. Ariston Bautista y Lim were appointed to represent the Merchants' Association, and Messrs. J. M. Switzer and J. S. Reis, later succeeded by Messrs. E. B. Bruce and G. A. O'Reilly, were appointed by the Governor General to represent the government. Approximately ₱13,000 has been raised by the merchants, making available ₱26,000 for this important work. Mr. M. L. Stewart, director of prisons, was given leave by the Governor General in December and was appointed commissioner for commerce in the United States to be the agent of Philippine publicity there. Agents of the publicity movement have also been appointed in Japan and China. The committee has been an active one and has prepared folders, books, lantern slides, and cinematograph films and has made plans whereby the possibilities of the Philippine Islands for travel, agriculture, and investment will be brought to the attention of the public. It is our endeavor through these means to attract a portion of the large tourist trade which annually comes to the Orient. It is reported that the income from the tourist trade alone in Japan amounts to ₱50,000,000 a year, and it is believed that if the scenic attractions, the industries, and the possibilities of the islands are brought to the attention of the traveling public this country will get its fair share of the large amount of money spent in the Far East by tourists.

BOARD OF RATE REGULATION.

During the year the board of rate regulation's chief activity has been in considering and adjudicating the cases arising under order No. 15, mentioned in the last report. This order has had to be modified to a certain extent to meet actual conditions as they become known throughout the islands, and although at its promulgation it was generally condemned by the carriers and resulted in some trouble in and about Cebu these matters have been satisfactorily arranged. A special committee was sent to Cebu to hear the complaints of the shipping men there and it is believed that the order will prove of value to both carriers and shippers and in assisting and encouraging interisland trade.

MANILA HOTEL.

The Manila Hotel, which has been mentioned in the last two reports of the Governor General, was formally opened July 1, 1912, and it is now believed that Manila can boast of the finest hotel in the Far East, which will meet a long-felt want in the islands and should assist materially in attracting the tourist trade here.

BAGUIO.

The progress made in Baguio has continued on the same general lines as those mentioned in the last report. In spite of the damage that was done to the Benguet Road by the typhoons of July, 1911, the road was opened in December at a comparatively small cost and has continued to be in good condition throughout the year. It may now be safely said that the future of Baguio is assured. Contracts have been signed with the Manila Railroad Co. for the construction of a railroad line to Baguio to be built within two years. The railroad will enter Baguio from the west, from La Union, parallel to the general line of the old Naguilian Trail. Work has been begun and a considerable portion of the earthwork has been completed. An expert on rack railroads was obtained from Europe who has made plans for the construction of the line. Surveys have been run, and within a few months final plans will have been completed and the materials for this line will have been ordered. With rail connection an accomplished fact, the important problem of making Baguio available to the general public will have been solved, and it is believed that the summer capital will soon justify itself. Rapid developments may be expected, for, in addition to its being the seat of government for at least three months each year, all obstacles in the way of the development of the Army post there will be removed. The Army sanitarium will probably be largely increased and the naval sanitarium will be constructed. The construction of the naval sanitarium in Baguio will give the American Government a place where its officers and enlisted men may recover in a temperate climate from the diseases incidental to tropical service and a sanitarium which will always be available and will not be cut off at the time of the greatest need.

A movement has been started and the foreign consuls in Manila have made favorable representation to their governments to have their official residences in Baguio while the seat of government is

situated there during the hot season. It is also believed that a large development of the gold-mining region near Baguio will result from rail connection to Manila.

The interest in Baguio of the wealthy Filipinos mentioned in the last report has continued and plans have been made for the early construction of private houses in Baguio which will require an expenditure of more than ₱170,000.

During the year the bureau of public works carried 5,172 tons of freight on the Benguet Automobile Line and 19,532 passengers.

With the railroad completed, the large amount of motor rolling stock which the bureau of public works at present must keep on the road to supply the needs of the city may be released for work in the lowlands where it is intended to use it on the improved roads as feeders to the railroads throughout the islands.

The government moved from Manila about the middle of February and returned between the middle of May and the middle of June, making a season of approximately three months in the hills for about 700 of its employees.

PANAMA-PACIFIC INTERNATIONAL EXPOSITION OF 1915.

By Act No. 2163 the Philippine Legislature appropriated ₱500,000 for a Philippine exhibit at the Panama-Pacific International Exposition to be held in San Francisco in 1915. It provided for the appointment of a Philippine exposition board to handle this matter; and the Hon. Rafael Palma, Mr. W. W. Barclay, then treasurer of Iloilo, and Gen. Manuel Tinio, the director of labor, were appointed members of this board. Since that time, Mr. Barclay having been appointed special agent to the Governor General, Mr. F. W. Taylor, the director of agriculture, who has been intimately connected with several of the largest expositions in the United States, has been appointed a member and director general of the board.

The board has organized and has taken up the question of exhibits with the different bureaus and departments of the government and with the various provincial governments. They propose to have a very complete exhibit of the agricultural, horticultural, and industrial products of the islands. A favorable site for the Philippine exhibition has been allotted to the board and everything possible is being done toward the preparation of an exhibit worthy of the Archipelago. It is believed that further appropriations by the Legislature will be necessary or that some aid must be given by Congress for the Panama-Pacific Exposition, as it is clear that the ₱500,000 appropriated for this purpose is inadequate for the buildings and other expenses which are necessarily incident to such an undertaking.

EXECUTIVE BUREAU.

No important changes have taken place in this bureau during the year. It has continued to be most efficiently administered, and although the personnel has remained almost stationary, its activities have been largely increased.

During the year Mr. W. T. Nolting, special agent, was appointed collector of internal revenue and Mr. W. W. Barclay, then treasurer of the Province of Iloilo, made special agent in his place.

Among the important activities of the executive secretary has been the investigation of proposed loan investments from the funds of the insular treasury, available for this purpose, to provinces and municipalities for permanent improvements. Investments of these insular funds, which have heretofore been largely made in interest-bearing deposits in banks, and in bonds, have this year been made in loans for provincial roads, bridges, and buildings, and for municipal buildings and markets. Such loans as are made bear interest at 3 and 4 per cent per annum, and are repayable in installments up to 10 years. In addition to the safety of these loans, which are made only after the closest examination of the finances of the provincial and municipal governments, the returns to the government and to the people are very much more than the actual cash interest received. This is especially true of the loans made for municipal markets which, when constructed, add to the health and good order of the community, and very largely to the receipts of the municipal government. On June 30, 1912, there were available for investment ₱9,922,417.58, of which ₱3,795,079.94 had been loaned to provinces and municipalities and ₱3,030,300 invested in approved bonds.

The executive bureau has general administrative charge of elections. This year elections for provincial and municipal officials and for delegates to the Philippine Assembly were held on June 4. The results and details, so far as they have been decided, are shown in the report of the executive secretary, forwarded with this report.

PROVINCIAL GOVERNMENTS.

The number of provinces under the administrative authority of the executive bureau remains the same as in the last report. The percentage of Filipinos in the provincial service is 93, as compared with 92.6 for 1911. In the regularly organized provinces the governors and third members are elected; the treasurers are appointed by the Governor General, there being 11 Filipino and 22 American treasurers. In the special provinces of Palawan, Mindoro, Agusan, Mountain Province, and Batanes the governors are appointed, all being Americans. The Moro Province continues to be governed by the general commanding the Department of Mindanao, who is appointed governor of the Moro Province by the Governor General, and he in turn appoints the governors of the districts into which the province is divided.

All regular and special provincial governments, with the exception of the Moro Province, which legislates for itself, took advantage of the provisions of the double cedula law to share in the insular allotments for roads and bridges. There was no remission of the land tax; the date for collecting the same without penalty was, however, extended from June 1 to June 30, in order that no one who was a qualified elector and who was registered during the month of May might, by reason of becoming delinquent in the payment of the land tax on June 1 and voting at the election on June 4, become guilty, perhaps unwittingly, of violating the election law, which disqualifies delinquent taxpayers as voters.

There was a consistent advance in the construction of roads, bridges, and in permanent improvements during the year. The total length in kilometers of roads in operation at the close of the year was:

1,847, first class; 2,152, second; and 3,216, third, as compared with 1,587, 1,069, and 2,956, respectively, in 1911. A reinforced concrete jail at Iloilo and provincial buildings for Capiz, Iloilo, and Isabela were completed during the year. A provincial building, jail, and store room at Cabanatuan, Nueva Ecija, are nearing completion, and the provincial capital will be transferred from San Isidro on October 1. One hundred and forty-eight artesian wells were drilled during the year; the total number of wells now giving pure water to the people is 686.

Conditions of public order in the Mountain and special provinces have been uniformly good; health conditions have improved, and the trail work which is necessary to open up the country and bring the people more closely in touch with each other and their governors has steadily progressed.

However, it may be stated that, in general, the conditions of public order have been fair. There has been a great increase in the amount of road construction and permanent improvements. Although the province has suffered somewhat from the drought, it has been the most prosperous year for commerce that has ever been recorded.

At the Philippine Exposition, held in Manila February 3-11, 1912, 26 of the regularly organized and 4 special or non-Christian provinces made extensive exhibits. The success of this exposition was due in a great measure to the efforts of Mr. Barclay, then provincial treasurer of Iloilo, who was the director general. It was a distinct advance over the exhibit of a year before, and of the utmost value in placing in a concrete way before the Manila public and the visitors who were here at that time the commercial and industrial possibilities of the islands.

BUREAU OF CIVIL SERVICE.

On January 1, 1912, there were in the permanent civil service 8,713 employees, an increase of 1,099 over the preceding year, 47 of whom were Americans and 1,052 Filipinos, due for the most part to the placing of the justices of the peace on a permanent examination and salary basis. During the calendar year 1911 the proportion of Americans in the permanent service decreased from 35 to 31 per cent.

The total number of persons examined during the year was 7,422, an increase of 6 per cent over the preceding year. The tendency noted for several years for the number of Americans examined to decrease, the number of Filipinos examined in English to increase, and the number of Filipinos examined in Spanish to decrease continued. During the year 6,259 took educational examinations in English, as against 988 in Spanish; 30 per cent of those examined in the former language passed, while but 19 per cent of the latter succeeded. Of the Filipinos promoted, 1,206 had qualified in English examinations and 477 in Spanish.

Eight hundred and eight appointments were made to the classified civil service as a result of examinations held in the islands, a decrease of 142, or 18 per cent, from the preceding year. Only 92 Americans were appointed, as compared with 165 during the preceding year, a decrease of 44 per cent. The proportion of local appointees who were Filipinos increased from 83 to 89 per cent. The number of appoint-

ments made in the United States to the classified civil service during the year was 243, as compared with 268 in the preceding year.

During the year the question of the prevalence of tuberculosis among the employees of the government was investigated. As a result of correspondence between the insular auditor, the director of health, and the director of civil service, the Governor General directed that all new appointees to the insular civil service in Manila be required to submit to a physical examination by a physician of the bureau of health, and that no appointment be effected until a satisfactory certificate is obtained that the applicant is not suffering from some dangerous communicable disease.

For further particulars and recommendations of the director of civil service, attention is invited to his report, which is submitted herewith in detail.

CITY OF MANILA.

The administration of city affairs has continued without noticeable changes during the past year. During the year Mr. Roxas was absent for some months, and during his absence Mr. McDonnell was acting president of the municipal board.

Public order has been fair, the police showing an increase of arrests over the previous year, due to a large increase of cruelty to animal cases, violations of the opium law, and petty thievery. A wave of petty thievery spread through the city toward the end of the dry season. This was partly caused by the demoralization of the police force, due to the extended police investigation, to the hot weather and consequent relaxing of house protection by owners, and to the crying need of an habitual criminal act. It is believed that an act prepared on modern lines, looking toward the punishment of habitual criminals, will do more than any other one thing toward the decrease of crime in the city of Manila.

The health conditions in Manila have been excellent. There has been a minimum of cholera, but two cases of plague, and almost no smallpox.

In April, due to the extended drought and to the appearance of leaks in the Montalban Dam, there was a considerable shortage in the city water supply. The engineers who had for some time been investigating the situation took advantage of the opportunity afforded by the excessive low water to close the crevices which had appeared in the limestone at the sides of the dam so that this waste, which had been increasing for some time past, has been entirely checked. The dam itself, on examination, was found to be well constructed and in perfect repair. While these investigations were in progress it was found necessary to use the old Santolan pumps and to supply water from the Mariquina River. For a short period the inhabitants of Manila were put to some inconvenience on account of the small supply of water, which was remedied as far as possible by using water from the esteros for sprinkling the streets and by cautioning the inhabitants to make a reasonable use of the water supplied by the city water system. It is interesting to note the increase in sickness which can be traced directly to the use of the water of the Mariquina River. In spite of the efforts of the health authorities and the strict injunctions to boil all

drinking water, the death rate from diseases due to the consumption of bad water increased by leaps and bounds. When the use of water from the new water system alone was resumed this wave of disease subsided as quickly as it had arisen.

The average consumption of water per head has increased surprisingly since the new waterworks were put into commission some years ago. It is believed that the water situation is for the present well in hand, and studies are being made looking toward measures which must soon be taken to increase the water supply of the city.

During the year 155 fires occurred, 10 more than in 1911. This is the largest number of fires that has ever occurred in any one year since the organization of the fire department, and the loss of ₱3,442,657 is the largest fire loss that has ever been experienced. To increase the efficiency of the fire department it has been decided to motorize the entire department. It is estimated that by this means an annual saving of ₱50,000 can be effected. The bureau of navigation's launches which assist in fires along the water front and esteros will be supplied with extra large pumps and fire-fighting apparatus.

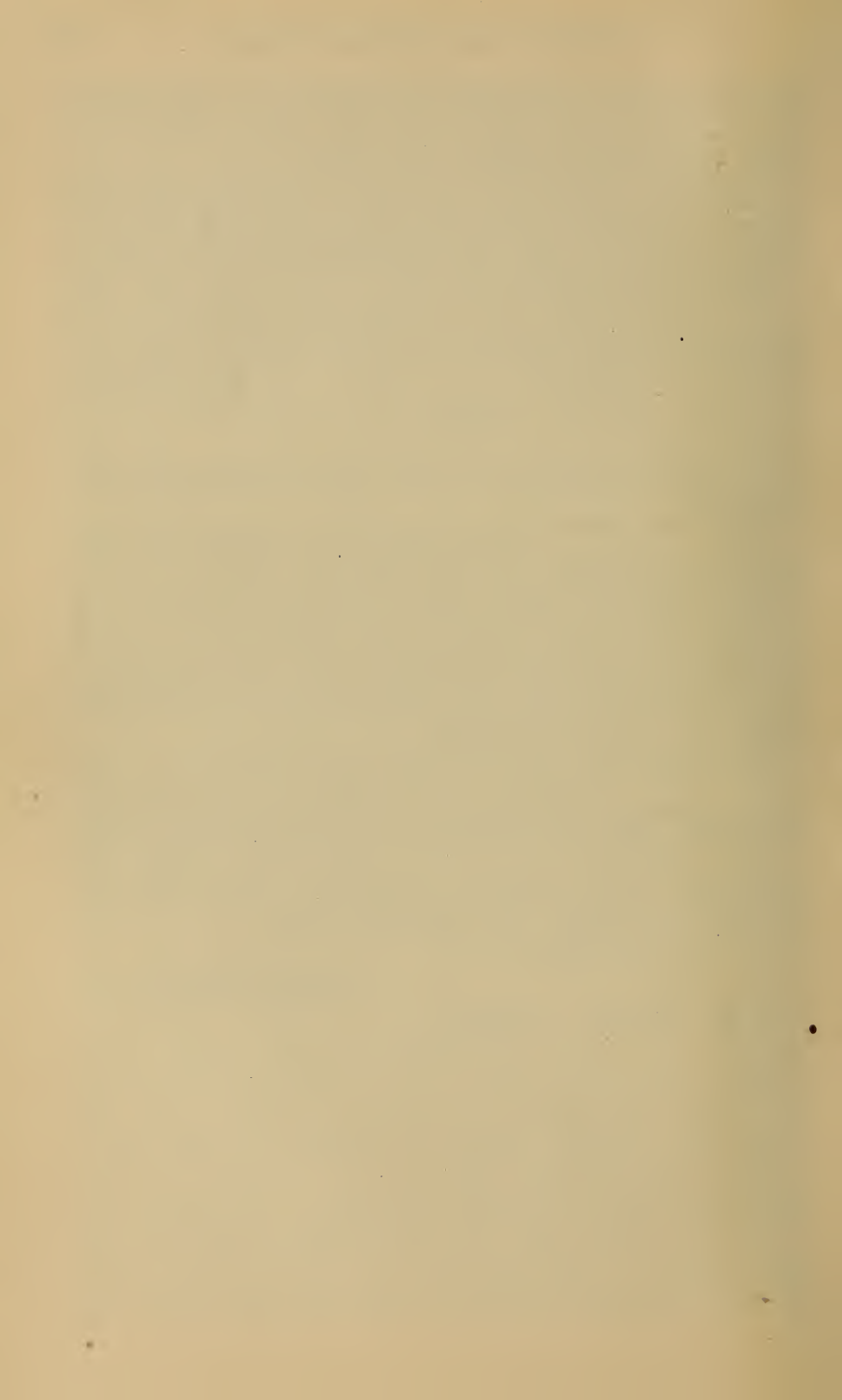
The general advance during the year in the progress of park construction mentioned in the last report has continued. The condition of the city streets has improved, and it is hoped that in the coming year decided progress will be made in this important particular. Since the end of the fiscal year considerable loans have been authorized to be made by the general government to the city for opening up new streets and widening the old ones in the congested business sections, particularly in the Escolta and in the Chinese section. This will materially assist traffic and will make the fire risk in that portion of the town very much less.

The greatest need in the city school situation continues to be that of schoolhouses. There are no funds available for the construction of new schoolhouses, and the rented buildings are poorly ventilated and lighted. The city authorities are actively taking up the question of school playgrounds, and a system of supplying the children with cheap and substantial meals in the middle of the day has been inaugurated. Medical inspection of the children is also carried on. In general, the situation is an extremely good one.

Very respectfully,

NEWTON W. GILBERT,
Acting Governor General.

To the PHILIPPINE COMMISSION,
Manila, P. I.



REPORT OF THE EXECUTIVE SECRETARY.

REPORT OF THE EXECUTIVE SECRETARY.

THE GOVERNMENT OF THE PHILLIPINE ISLANDS,
EXECUTIVE BUREAU,
Manila, September 16, 1912.

SIR: I have the honor to submit herewith the report of the executive bureau for the year ending June 30, 1912.

During the period covered by this report, among the most important occurrences in which the executive bureau has been concerned have been—

The successful intervention by the government in the control of prices and assurance of adequate supply of rice, the chief food staple of the inhabitants of these islands;

The presentation to the Legislature of a bill, now Act No. 2110, providing for industrial instruction of adults, particularly in those branches coming within the classes generally termed "cottage" or "household" industries;

The further study of adequate remedy for the increasing dependence of the Philippines on foreign supply of food staples;

The beginning of systematic effort, under the direction of this office, for the improvement of sanitation, development of municipal revenues and embellishment by financing the construction of public markets, water-supply systems, public cemeteries, plazas, playgrounds, street widening, and the determination by municipal councils, with the advice of this office, of street layout plans for present and future guidance;

The investment of sinking funds and other special funds in financing the construction of provincial public works of a permanent character, including buildings, bridges, and roads, as well as those municipal improvements already mentioned, thereby serving the purpose and avoiding the difficulties of a multitude of small bond issues; and

The elections for members of the Assembly and provincial and municipal officers, which, under the election law as amended, are now for a term of four years, beginning October 16, 1912.

The executive secretary, under the organic act creating the bureau, acts for and in the name of the Governor General in many routine and other matters, and on his own responsibility, by virtue of specific statutory provisions, in a considerable number of lines of effort, particularly in the supervision of provincial and municipal administration.

GOVERNMENT INTERVENTION IN THE RICE MARKET.

The production of rice in the Philippines for more than 10 years past has fallen far short of the amount required to meet the demand for this chief food staple of the majority of the Filipino people, and

when it was found that there had occurred coincidentally, both in the Philippines and Indo-China, our chief foreign source of supply, a serious shortage in the 1910 crop, which is in greatest part harvested during the months of September to December, it became apparent that a critical situation would occur. The anticipated disturbed conditions in the market materialized in the month of August, 1911, precipitated by the knowledge of the order of the French Government in Indo-China prohibiting the export of rice. The price went rapidly upward until on September 15 the extraordinarily high quotation of ₱8.70 was the lowest which could be secured for the standard quality—Saigon No. 2, white—in 1,000 cavan lots at the dealers' warehouses in Manila. For more than six years previously the wholesale market price of rice in Manila had been below ₱6 per cavan (125 pounds).

On September 16, 1911, the Governor General appointed a committee composed of the secretary of finance and justice, the executive secretary, a member of the Philippine Assembly, the president of the Bank of the Philippine Islands, and the president of the Filipino Chamber of Commerce, "to investigate the present and probable future market conditions in connection with the alleged scarcity of rice in the Philippine Islands," and to "make recommendations as to the measures that, in its opinion, this government should take in order to prevent distress in the Philippine Islands, through the lack of this article of prime necessity."

It was obvious that drastic action must be taken at once to prevent further rise in prices and to bring them if possible back to a figure approximating those customarily ruling, and upon which were premised the wage schedules of laborers and of 95 per cent of skilled and unskilled employees of commercial and industrial enterprises. Importers and large dealers seemed definitely of the opinion that prices would go very much higher, and it was reported that one large dealer who had about 100,000 cavans in stock refused to sell at ₱8.70, and said he expected to get ₱12 per cavan for his stock. Upon the recommendation of the committee a cargo of rice was purchased which was available for immediate delivery at Manila and another for almost immediate delivery at Cebu, and further purchases were made of cargoes which would probably not otherwise have come to the Philippines but have gone to other rice-consuming countries in the Orient, the shortage being general throughout this entire region. A total of 13,272.48 tons were purchased at a total cost of ₱1,950,-254.73. This rice was placed on sale through provincial and municipal governments as far as possible directly to consumers in small quantities. The upward movement of prices was, of course, checked at once by this action, and dealers, in order to move their stocks, sold at rates slightly below the government price, which was then from time to time reduced until on November 11, 1911, the government price was fixed at ₱6 per cavan f. o. b. Manila, which, as has been stated above, was slightly greater than the highest quotation for several years previously.

The heavy floods in the latter part of 1911, followed by a general and exceedingly severe drought throughout the rice and corn producing provinces, indicated a still greater crop failure for 1911 than that of 1910. As a result, the local producers of rice either had none to sell or were unwilling to sell until much later, and the early crop, which

ordinarily begins to come into the market at the end of October each year, did not do so. The problem then became one not only of control of prices but the assurance of an adequate supply of rice until the latter part of January or the middle of February, when the Indo-China crop ordinarily begins to arrive in Manila and Cebu.

While the popular feeling had been one of commendation of the government for its intervention in the control of prices, there had been a growing disposition to criticize the government for having purchased too heavily and thereby incurred an alleged probable unavoidably heavy loss through overstock. However, the unanticipated shortage in the local 1911 crop, added to the fact that the export of rice from Saigon was prohibited by the French Government and the Rangoon market exhausted, resulted in placing the Philippine Government in the position of having acted most fortunately in purchasing heavily as it did. Only by the exercise of great care and the strict enforcement of restrictions as to the amounts that might be sold to any one purchaser was it possible for the government to carry the situation through until February 14, when the new local and Indo-China crops became a controlling factor in the market. All of the government stocks of rice were exhausted and nearly 1,000 tons more than was available could have been shipped out had requisitions been filled without reduction during the last months of the operations. The loss to the government was ₱188,261.22 or, including customs dues on rice purchased by the government, ₱453,710.82. This loss was incurred on funds of the insular treasury, the undivided money of the people, and was many times over offset by savings aggregating several millions of pesos in the pockets of the individual purchasers and consumers of rice, who by reason of the intervention of the government paid but from 50 to 75 per cent as much for their rice as would otherwise have been necessary, and, furthermore, would probably have been for at least one month entirely without rice and forced to seek substitutes. The saving to the public on the stock of the one dealer already mentioned amounted to more than the total loss to the insular treasury.

By reason of the serious shortage in the local 1911 crop it was apparent that an unusually large amount of rice must be imported this year. The Indo-China crop was also found to be short again, and prices in the Manila and Cebu markets have accordingly kept abnormally high. In view of the probable repetition of last year in the exhaustion of stocks in both Saigon and Rangoon, or at least that they would be so limited as to fall easily into the hands of speculators, it seemed necessary again for the government to intervene, and the Legislature which on October 19, 1911, had, by Act No. 2076, in effect confirmed the action of the Governor General in the purchase and sale at reasonable prices of foodstuffs, again by Act No. 2155 authorized the Governor General to take such steps as in his judgment might be necessary and warranted by circumstances to prevent the price of rice from rising above a reasonable rate and to supply rice and other foodstuffs to the people at reasonable prices.

Both of the statutes mentioned above call on the Governor General to recommend to the Legislature measures of a permanent character tending to assure an adequate supply of foodstuffs. Active propaganda have been carried on by the bureau of education to generalize the use of Indian corn or maize as a food substitute for rice. Here-

tofore such use of maize has been limited to but four or five provinces. Inasmuch as a crop of corn may be planted and matured in a shorter period of time than any of the ordinary varieties of rice and has greater resistance to drought, its advantages in these regards over rice as the staple cereal are important, particularly in years of drought or rice-crop shortage for other reasons.

Under the immediate direction of the Governor General, and as the active member of the committee appointed by Executive Order No. 47, the executive secretary has undertaken to keep constantly informed regarding the local food situation throughout the Archipelago, in the rice markets of Saigon and Rangoon, and the situation generally throughout the rice-consuming countries of the Orient which depend upon Saigon and Rangoon to supply their shortages. The bureau of supply purchased, stored, and shipped the government stocks of rice which have in greatest part been distributed and sold to consumers by municipal treasurers under the supervision of the provincial treasurers operating under the direction of this office. In the city of Manila the department of sanitation and transportation handled the sale of government rice in public markets with marked efficiency and to the satisfaction of all concerned.

HOUSEHOLD INDUSTRIES.

The desire of the Legislature as expressed in both Act No. 2076 and Act No. 2155 for a permanent remedy which would assure a sufficient food supply for the people of these islands, called for either an increased production of rice, which would cover the deficit and terminate the necessity for importing this cereal, or the improvement of the economic condition of the masses of the people to a point which would enable them to purchase rice or its equivalent at even abnormally high prices.

The annual importation of rice into the Philippines according to the experience of the past 13 years may be depended upon to be from 100,000 to 250,000 tons. To produce this quantity here it will be necessary to increase the area planted to rice in these islands by about 250,000 hectares (600,000 acres), or secure an improvement in the present methods of cultivation which would give a corresponding increased production. But even were all the rice required for consumption in the islands produced here there must be anticipated years in which by reason of crop failures in some districts the inhabitants thereof by reason of their complete dependence upon one single crop, be it sugar, tobacco, copra, or rice, and for other existing economic conditions, would be without money with which to buy rice from those districts of the islands where an excess production would be had. This very situation has existed repeatedly in the history of the islands and may be expected to repeat itself until a remedy is discovered and applied. And perhaps the most lasting harm caused by the conditions just mentioned is that the people, owing to the failure of their own crop and having no other resources, are forced to leave their fields and homes and seek employment elsewhere to secure food. The natural movement under these conditions is to the large centers of population where employment in factories and other industrial activities may be had. While families make this change, intending it to be a mere temporary arrangement,

a considerable percentage remain in the cities and are permanently lost to agriculture, the fields formerly cultivated by them are abandoned, and the danger of too great a trend from rural to urban life threatens.

A review of the experience of other countries, particularly in Europe and Asia, seems to indicate that the generalization of cottage or household industries offers a solution, in part at least, of our problem. The Filipino people long have been famous, where their products are known, for the making of fine embroidery, hats, and other objects of great demand in the United States and which can be produced advantageously in the homes of the workers rather than in factories. Furthermore, these industries seem to call for the investment of very little, if any, cash capital by the individual worker. While the public schools are devoting as much time as may be to the instruction of children in these industries, it seemed apparent that for immediate and large results it would be necessary to provide for the instruction of adults in large numbers.

In the course of the investigation of the subject grave doubt was expressed by many presumably well-informed persons as to the feasibility of teaching women of the masses fine embroidery or lace making, and it seemed probable that this doubt would be a sufficient obstacle to prevent the adoption of a program for systematic work looking to the generalization of these industries at an earlier date than would naturally result from the instruction given the children in the schools. To demonstrate the fallacy of this doubt the director of education arranged, with the approval and enthusiastic encouragement of the director of prisons, for Miss Fannie McGee, who was in charge of instruction of household industries in public schools in the city of Manila, to inaugurate instruction work in the women's department at Bilibid Prison. The female convicts were with rare exception women of a low degree of intelligence and untrained in the use of a needle, nor had they had other mental or manual training helpful to the purpose. By reason of their natural talent for such work, and under the well-considered method of instruction, within four months a considerable number of the women qualified as efficient workers and none has failed to develop the efficiency necessary to produce a marketable product representing at least a fair daily wage. The constant and voluntary interest displayed by the women was of course essential to the satisfactory results obtained. This demonstration would seem to prove the probable success of industrial training for the women of the masses, with a resulting economic efficiency on their part equaling, if not exceeding, that of the men at present engaged in agricultural work. The feasibility of hat making, mat making, and other pursuits coming within the general class of household industries may be considered unquestionable in view of the results just above stated, particularly as they have long existed to a limited extent in certain villages in the islands.

The information at hand seemed to warrant the Governor General in recommending the matter to the Legislature. A bill drafted by the director of education upon the suggestion of this office was presented to the Philippine Assembly and passed by the Legislature as Act No. 2110 on January 20, 1912. It appropriated the sum of ₱100,000 for the establishment and maintenance in the city of Manila of a school of household industries. This institution is placed

under the director of education and provides for instruction of about 300 women per annum. The plan contemplated the filling of these scholarships by the appointment of representative women from the various provinces in the Archipelago, and the law requires that the appointees sign an agreement to return upon the completion of the prescribed course of instruction to their home towns for the purpose of instructing other women in the same industry or industries in which instruction had been received from the government.

It is hoped that the success obtained in this institution will be such as to warrant the Legislature in making further appropriations, not only for the continuance of the Manila school but in time for the establishment of similar institutions at the more important centers of population in the provinces. In this manner it is expected that within a very few years the great majority of the families of agricultural laborers, and others as well, will have as a supplementary source of income some of the various household industries which offer so profitable employment for the spare time of the women whose household duties require but a comparatively small portion of each day.

In addition to a systematic program of instruction it will be necessary for the government for several years to assist workers in securing proper designs and in marketing the product of their labor; in fact, assist in bringing the exporter and producer together, and while assisting the former in securing qualities and quantities desired, at the same time to secure for the producer a fair share of the ultimate sale price of the article as purchased by the consumer. This service may be rendered, it would seem, by the sales agency under the authority contained in Act No. 2110.

The United States imports annually embroidery and lace to a value of about ₱80,000,000. The import trade of hats, matting, etc., is also large, and, like that in embroidery and lace, is in great part with countries which do not import a corresponding amount of products of the United States. There is no apparent reason why the Philippine Islands should not within a few years produce a large portion of these articles for the United States market, and with the tariff protection which American products have in the Philippine market, a corresponding export trade from the United States to the Philippines would logically result.

RELIEF FROM DEPENDENCE UPON FOREIGN-GROWN RICE.

There remains for study and well-considered effort another phase of our economic problem, and that is the increase in our production of rice fully to meet the Philippine demand for that staple.

Assuming that the production of copra, of hemp, of sugar, and of tobacco are more profitable than the production of rice, it is contended by some students of our situation here that all efforts should be devoted to these crops and purchase as necessary rice which may be grown so cheaply in other parts of the Orient. In the discussion of this question, as in that of many others involving economic conditions in this and in other countries, there is much to be said on both sides of the question; but war between Great Britain and France, or involving either one of these powers, would result in a blockade of the ports in their colonies and consequent closing without notice of one or both of the only practical foreign sources upon which the

Philippines may draw for rice, that available for export from other countries being so expensive as to be wholly beyond the purchasing power of the masses here.

There are in the Philippines in the great valleys of Luzon, of Mindoro, of Mindanao, and of the smaller islands, ample areas of public land easily developed into rice plantations of the first class, with excellent water transportation facilities, and so free from forest growth as to be immediately available for rice planting. There are in the Ilocos Provinces, in the southern part of the island of Cebu, in a portion of the island of Bohol, and to a lesser extent in other portions of the Archipelago, congested populations which with great difficulty are striving to produce enough food for their own consumption by the cultivation of exhausted fields and rocky hillsides. If 30,000 families can be induced to abandon their present homes in the districts just mentioned and locate under Government supervision on the public lands described above, the Philippine Islands will cease to send ₱20,000,000 annually to French Indo-China and British Burma, neither of which countries purchases more than a few thousand pesos annually of Philippine products.

As the bureau of education is the logical branch of the Government to undertake the generalization of household industries, it would seem that the bureaus of labor and agriculture logically should, and with certainty of success may, undertake the bringing together of a portion of the labor now devoted to practically unproductive effort and the fertile river valleys of the public domain—which is potentially the rice granary not only of the Philippines but of millions of industrial workers in near-by oriental countries, whose low purchasing power demands cheap rice. Whether machinery and different methods of cultivation may profitably be adopted are problems urging solution.

The intervention of the executive bureau in the matters discussed in this and the preceding sections of this report has been premised upon the somewhat comprehensive view of our economic situation revealed by a constant study of ways and means for increasing the financial resources of provincial and municipal governments, the need for developing a greater tax-paying power in the resident of the islands, be he farm laborer or capitalist, and consequent relative lightening of the tax burden though its weight be increased as stated in pesos and centavos. The popular demand fortunately is for more extensive and efficient public service. Six pesos as compared with ₱3 per capita per annum will secure more than twice as much material results in both extent and efficiency of primary school instruction, public sanitation, means of communication, construction of roads and ports, charities, higher education, and in all other public services the people desire and should have.

ELECTIONS.

Hitherto elections have been held on the first Tuesday after the first Monday in November, the day when Federal elections are held in the United States, but by act of Congress approved February 15, 1911, the term of office of Delegates to the Philippine Assembly was made four years, beginning October 16, 1912, and the Legislature was given the right to fix the date for the commencement of its annual

sessions. The legislature selected October 16 as the date by Act No. 2045, and as this made the former date for elections inconvenient, the same act fixed the date for future elections as the first Tuesday of June, 1912, and the same date every fourth year thereafter. By the same act the terms of office of elective provincial and municipal officers were made the same as those of the Delegates.

Elections were accordingly held June 4 for Delegates to the Philippine Assembly, and provincial and municipal elective officers in all the regularly organized provinces, for Delegates in Batanes, Mindoro, and Palawan, and for Delegates and two members of the municipal board in the city of Manila. The elections passed off quietly and peaceably, there being few disturbances and none serious, although party and factional feeling was intense.

Notwithstanding this was the third election held under the present law, which is as simple as possible in operation, much difficulty was found in its actual operation by election inspectors, and at the date of writing this paragraph, September 14, statistics are still wholly wanting from two provinces, from 75 out of 738 municipalities and townships, and partially wanting from 74 municipalities. This is due to the inveterate habit of inspectors of locking the registry lists into the ballot boxes after finishing the count, although the lists themselves show a warning, in large type in both Spanish and English on the covers, not to lock them in the boxes. They ignored this warning in over half the precincts and had to reconvene and extract the lists long after the election.

There was much difficulty and delay also in counting the ballots.

The table herewith shows the details so far obtained. The registration, the largest yet recorded, shows a large increase over that of 1909, and included about 3.5 per cent of the census population of the territory holding elections. There were actually cast about 96 per cent of the registered votes, or 3.3 per cent of the population.

Although the educational qualification for voting is not high—consisting only of ability to speak and write either English or Spanish—the proportion of electors shown to possess this degree of education, including the city of Manila, where 86 per cent were literate, was very nearly but not quite one-third of those registered. In the provinces alone but 30 per cent were educated. This lack of education required a large number of ballots to be prepared by the inspectors, a proceeding which opens the door to fraud and which is known to be one of the chief reasons for the large number of protested elections, which was 240. The proportion of literate electors to the population in the territory affected was 1.47 per cent.

The accompanying table shows the party affiliations of the successful candidates.

In the absence of complete data, statistics from so many municipalities being still lacking, further discussion of matters under this head will not be attempted in this report.

Election statistics.

Provinces.	Candidates presented by political parties.	Candidates independent of political parties.	Persons voted for who failed to file certificates of candidacy.			Persons presented for registration.	Persons accepted for registration by board of inspectors.	Persons not accepted by board of inspectors.	Persons challenged.	Persons appealed to courts or first instance, or justices of peace.	Persons whose registrations have been ordered by provincial boards or courts.	Persons finally registered and their qualification and qualifications.							Total registered.
			Delegates.	Governors.	Third members.							Office qualification.	Property qualification.	Educational qualifications.	Office and professional qualifications.	Office and educational qualifications.	Property and educational qualifications.	Office, property, and educational qualifications.	
Albay.....	.....	349	2	.....	.....	9,975	9,924	51	4	1	.....	427	1,229	660	95	15	64	36	9,924
Ambos Camarines.....	.....	.....	.....	.....	.....	7,342	7,212	130	349	279	60	2,352	1,139	1,932	22	8	3	1	6,923
Antique.....	3	223	.....	.....	.....	3,075	3,059	16	.....	.....	.....	640	130	542	.....	.....	.....	.....	3,059
Bataan.....	.....	108	.....	.....	.....	1,743	1,725	18	64	.....	25	410	248	883	61	8	35	41	1,688
Batanes.....	.....	451	.....	.....	.....	9,451	9,435	16	16	9	2	3,702	2,291	144	274	53	190	150	8,993
Batangas.....	.....	240	33	46	220	9,056	9,055	11	131	128	69	3,702	2,291	144	274	53	190	150	8,993
Bohol.....	.....	707	30	20	69	3,271	3,219	52	83	23	21	1,620	243	1,104	52	23	37	18	3,157
Bulacan.....	377	109	.....	.....	.....	10,997	10,949	48	105	2	68	5,442	1,908	2,084	546	226	374	72	10,912
Capiz.....	340	40	47	63	145	8,189	7,883	306	36	4	.....	476	2,006	4,237	60	199	322	123	7,862
Cebu.....	469	138	.....	.....	.....	7,772	7,742	30	251	241	169	1,732	3,700	1,616	174	182	99	113	7,616
Cebu.....	1	279	.....	.....	.....	9,905	9,745	160	.....	.....	.....	1,901	2,256	5,035	.....	.....	.....	.....	9,745
Cebu.....	33	374	.....	.....	.....	12,166	11,801	365	220	13	.....	3,506	1,333	4,072	113	210	80	83	11,797
Ilocos Norte.....	89	146	1	.....	.....	5,758	5,698	60	18	12	6	934	1,930	2,487	129	36	125	63	5,704
Ilocos Sur.....	176	425	.....	.....	.....	8,957	8,905	52	179	33	24	2,288	3,337	3,522	216	155	214	36	8,708
Iloilo.....	551	76	.....	.....	.....	20,402	20,225	377	674	4	245	7,562	2,553	9,108	95	123	23	68	19,807
Isabela.....	115	277	1	.....	.....	4,779	4,740	39	.....	.....	.....	703	437	3,478	10	121	406	187	4,740
Laguna.....	74	258	.....	.....	.....	8,213	8,165	48	3	40	41	2,748	3,339	2,116	.....	.....	.....	.....	8,203
La Union.....	134	166	3	.....	.....	6,211	6,197	14	4	2	2	1,117	3,143	1,764	67	7	86	15	6,199
Leyte.....	24	710	.....	.....	.....	14,274	14,096	178	206	1	1	2,419	2,380	8,963	30	116	22	26	13,982
Manila.....	.....	.....	.....	.....	.....	10,516	10,508	8	1	.....	.....	982	330	418	38	13	7	3	1,208
Mindoro.....	.....	.....	.....	.....	.....	1,200	1,208	52	.....	.....	.....	1,883	2,117	638	59	207	182	85	2,514
Misamis.....	31	85	.....	.....	.....	2,516	2,516	80	16	16	7	820	217	1,290	.....	.....	.....	.....	2,514
Nueva Ecija.....	355	519	.....	.....	.....	5,803	5,223	.....	.....	.....	.....	1,883	2,002	1,290	.....	.....	.....	.....	5,235
Oriental Negros.....	359	17	480	305	474	8,907	8,907	36	245	.....	78	1,028	521	812	.....	.....	.....	.....	8,740
Palawan.....	.....	.....	.....	.....	.....	6,54	6,30	24	83	53	4	377	37	137	1	21	3	9	585
Pampanga.....	204	213	.....	.....	.....	6,343	6,317	26	1	.....	.....	2,707	1,049	1,839	307	62	260	92	6,316
Pangasinan.....	145	693	.....	.....	.....	18,448	18,357	91	16	.....	.....	3,874	8,774	5,093	.....	.....	.....	.....	18,341
Idral.....	193	200	.....	.....	.....	8,059	8,055	24	7	19	.....	1,063	3,573	3,369	.....	.....	.....	.....	8,035
Samar.....	51	269	44	41	177	6,553	6,316	237	130	106	32	1,964	791	2,584	199	354	227	117	6,236
Sorsogon.....	.....	.....	.....	.....	.....	5,259	5,259	.....	.....	.....	.....	1,041	965	2,083	275	379	265	256	5,259
Surigao.....	244	.....	.....	.....	.....	1,374	1,361	13	28	.....	22	535	268	343	76	82	10	41	1,355
Tarlac.....	82	327	.....	.....	.....	5,703	5,702	1	.....	.....	.....	1,492	1,900	2,152	79	47	13	19	5,702
Tayabas.....	536	.....	.....	.....	.....	12,808	12,810	58	25	.....	.....	2,745	5,262	1,810	267	21	132	65	12,803
Zambales.....	31	328	.....	.....	.....	2,849	2,849	30	3	.....	.....	523	412	1,054	84	54	83	29	2,839
Total.....	3,837	8,198	648	475	1,085	252,456	249,805	2,051	3,137	988	881	61,815	60,553	81,916	3,391	2,097	3,467	1,748	248,154

Election statistics—Continued.

Provinces.	Voters who had their ballots prepared for them.		Persons who voted.	Votes obtained by political parties.					Candidates whose elections have been contested in courts.	Decisions of courts.					Offices affected by annulment of election.	Candidates whose contested elections still undecided.	Remarks.
	Illiterate.	Physical defects.		Progressista.	Nacionalista.	Independiente.	Unknown.	Protests dismissed.		Elections annulled.	Protests in which court decided the candidates tie.	Recount ordered and result changed thereby.					
Albay.....	2,750	1,064	9,805	431	4,417	3,578	1,379	18	9	5	1	2	6	.....	.....	Qualifications of electors in 15 municipalities and data of illiterate voters in 2 municipalities missing.
Ambos Camarines.....	1,406	.....	6,689	.....	4,159	967	1,563	11	7	.....	1	2	.....	1	.....	Qualifications of electors in 5 municipalities and data of illiterate voters in 12 municipalities missing.
Antique.....	606	369	2,913	123	1,410	.....	.....	3	.....	.....	.....	.....	.....	3	.....	Qualifications of electors in 5 municipalities missing.
Bataan.....	103	73	1,618	.....	1,568	.....	50	1	1	.....	.....	.....	.....	.....	.....	Qualifications of electors in 5 municipalities and data of illiterate voters in 12 municipalities missing.
Batanes.....	93	8	418	234	127	54	3	.....	5	.....	.....	.....	.....	2	.....	Qualifications of electors in 5 municipalities and data of illiterate voters in 12 municipalities missing.
Batangas.....	103	54	8,665	391	8,274	.....	.....	2	1	.....	.....	.....	.....	1	.....	Qualifications of electors in 5 municipalities and data of illiterate voters in 12 municipalities missing.
Bohol.....	1,069	46	3,005	.....	1,586	.....	.....	7	3	.....	.....	.....	.....	4	.....	Qualifications of electors in 5 municipalities missing.
Bulacan.....	780	595	10,246	.....	7,977	.....	513	7	3	.....	.....	.....	.....	.....	.....	Qualifications of electors in 5 municipalities missing.
Cagayan.....	1,303	271	7,113	2,797	3,463	.....	391	36	33	2	.....	1	2	.....	.....	Qualifications of electors in 5 municipalities missing.
Capiz.....	2,244	156	7,307	2,254	4,294	755	.....	16	5	2	.....	1	2	8	.....	Qualifications of electors in 1 municipality and data of illiterate voters in 1 municipality missing.
Cavite.....	.....	.....	9,396	190	4,720	4,486	.....	2	1	.....	.....	.....	.....	1	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.
Cebu.....	2,724	739	10,779	.....	5,342	4,210	1,227	45	11	1	2	.....	1	31	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.
Ilocos Norte.....	734	117	5,514	853	3,522	1,139	.....	9	5	.....	.....	1	.....	3	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.
Ilocos Sur.....	1,511	332	8,351	1,850	3,902	2,899	.....	32	16	6	.....	2	13	1	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.
Iloilo.....	4,704	622	17,358	8,314	9,044	.....	.....	26	21	.....	.....	.....	.....	5	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.
Isabela.....	209	15	4,594	1,729	2,121	744	.....	7	6	1	.....	.....	1	.....	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.
Laguna.....	825	45	7,991	1,723	3,890	2,378	.....	9	4	.....	1	.....	.....	4	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.
La Union.....	1,244	150	6,105	2,149	3,379	577	.....	3	3	.....	.....	.....	.....	.....	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.
Leyte.....	2,478	561	13,252	295	9,188	3,769	.....	21	18	1	.....	.....	1	2	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.

[illegible]

Parties.	Delegates, Philippine assembly.	Provincial governors.	Members, municipal board, city of Manila.	Third members, provincial board.	Grand total.
Nacionalista.....	55	21	1	19	96
Progresista.....	11	5		5	21
Liga Popular Nacionalista.....	3				3
Independiente.....	7	3	1	6	17
Nacionalista-Independiente.....	2	•		1	4
No record.....	3				4
Total.....	81	31	2	31	145

COMPARATIVE DATA CONCERNING PERSONNEL.

APPOINTMENTS.

The Governor General made 701 appointments and designations, 427 of whom were of justices and auxiliary justices of the peace. Six of the former and 11 of the latter declined to serve. Fourteen provincial officers resigned to become candidates for election as Delegates to the Philippine Assembly and for other provincial offices. One hundred and seven justices and auxiliary justices of the peace also resigned for electoral reasons. Two hundred and sixty-five justices and auxiliary justices of the peace and one insular official were relieved from office. The following table gives the details in full:

	Appointments by Governor General and the Commission.	Appointments canceled by Commission.	Appointments and designations by Governor General only.	Declinations.	Resignations.	Reliefs.	Removals.	Deaths.
Insular officers, including judges and officers of the Bureau of Navigation.....	64	.....	6	.....	3	1	.....	2
Provincial officers.....	33	.....	42	.....	123	.....	.....	1
City of Manila.....	8	.....	5	.....	1	.....	.....	.....
City of Baguio.....	.....	.....	4	.....	.....	.....	.....	.....
Municipal officers.....	.....	.....	110	.....	.....	.....	63	30
Justices of the peace.....	333	1	.....	6	297	213	17	5
Auxiliary justices of the peace.....	94	1	.....	11	138	52	9	5
Candidates and alternates, West Point.....	2	.....	.....	.....	.....	.....	.....	.....
Total.....	534	2	167	17	262	266	89	43

¹ 14 provincial officers resigned to become candidates for election as Delegates to the Assembly and for other provincial offices.

² 28 justices of the peace resigned to become candidates for municipal offices, 3 for Delegates, and 1 for Governor.

³ 79 auxiliary justices of the peace resigned to become candidates for municipal offices, 1 for Delegate, and 1 for Governor.

REMOVALS AND OTHER DISCIPLINARY ACTION AFTER INVESTIGATION OF CHARGES.

Of the 230 municipal officials, justices, and auxiliary justices of the peace against whom charges were brought during the year, 197 were found guilty, and 33 were either found not guilty or the papers thereof filed without action by the Governor General. Seventy-three of those found guilty were removed from office, 16 were removed and disqualified from holding office, the resignations of 6 were requested or accepted, and 102 were warned, reprimanded, or suspended. The number of officers tried and the number found guilty and not guilty is shown in detail in the following table:

TABLE No. 1.

Disposition, etc.	Presidents.	Vice presidents.	Secretaries.	Treasurers.	Councillors.	Justices of the peace.	Auxiliary justices of the peace.	Inspectors of election.	Chiefs of police.	Sergeants.	Police-men.	Lieutenants of battalions.	Total.	Grand total.
Cases tried:														
Officers suspended pending final decision	35	13	2	2	89	17	8	—	4	1	5	2	178	—
Officers not suspended pending final decision	16	2	—	—	22	7	2	1	2	—	—	—	52	—
Total	51	15	2	2	111	24	10	1	6	1	5	2	230	230
Action taken:														
Found guilty—														
Removed and disqualified from holding public office	6	1	—	1	2	2	3	—	1	—	—	—	16	—
Removed	12	7	—	—	27	15	6	—	1	1	3	1	73	—
Resignation required or accepted	1	—	—	—	1	4	—	—	—	—	—	—	6	—
Warned, reprimanded, suspended, or otherwise disciplined	22	3	2	1	67	1	1	—	3	—	2	—	102	—
No punishment owing to expiration of term	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	41	11	2	2	97	22	10	—	5	1	5	1	197	197
Found not guilty—														
Reinstated or continued in office	7	3	—	—	8	2	—	—	—	—	—	1	21	—
Not reinstated owing to expiration of term	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Charges dismissed	3	1	—	—	5	—	—	—	—	—	—	—	9	—
Total	10	4	—	—	13	2	—	—	—	—	—	1	30	30
Filed without action by the Governor General														
Total number of cases disposed of	51	15	2	2	110	24	10	1	5	1	5	2	227	—
Grand total	51	15	2	2	111	24	10	1	6	1	5	2	230	230

TABLE No. 2.

	Neglect of duty.	Abuse of official position.	Ignorance and incapacity.	Bad habits and immorality.	Extortion.	Larceny and bandolerismo.	Malversation and breaches of trust.	Bribery and kindred crimes.	Forgery and falsification.	False arrest.	Crimes of violence.	Violation of law (election etc.), executive orders and municipal ordinances.	Slander, disrespect, and use of bad language.	Interference in religious affairs.	Perjury.	Total.	Grand total.
Guilty:																	
Presidents.....	18	16		1	2		3		4	5	3	8		5	1	66	
Vice presidents.....	4	3					1	1	2			2				13	
Secretaries.....	1	2												1		3	
Treasurers.....							1					1				5	
Councilors.....	69	16				3	1	14			1	10		11	2	127	
Justices of the peace.....	8	12	2	2	1		4	1	1	3		1				34	
Auxiliary justices of the peace.....	2	1		1	2		2	2		1		3				14	
Inspectors of election.....																	
Chiefs of police.....	2	3			1		1					2		1		9	
Sergeants.....																1	
Policemen.....	5	2					1	1				1				10	
Lieutenants of barrios.....	1	1										1				3	
Total.....	110	57	2	4	6	3	14	19	6	9	4	29		19	3	285	285
Not guilty:																	
Presidents.....	10	4		1	2		4	1	1	3	4	6		2		38	
Vice presidents.....	4	1					1				1					7	
Secretaries.....																	
Treasurers.....																	
Councilors.....	4	6					1					2				13	
Justices of the peace.....	3	1		1	1		3			2			1			12	
Auxiliary justices of the peace.....		1														1	
Inspectors of election.....																	
Chiefs of police.....	1	1							1							3	
Sergeants.....																	
Policemen.....																	
Lieutenants of barrios.....												1				1	
Total.....	22	14		2	3		9	1	1	6	5	9	1	2		75	75

[illegible]

The foregoing table (No. 2) shows the nature and result of the 365 charges brought against the 230 officers referred to in the next preceding table. The totals of the two tables do not coincide for the reasons that an officer is frequently charged in the same case with several different offenses, found guilty of some, and acquitted of others. The number of the charges shown by Table No. 2 has decreased by slightly more than 11 per cent as compared with the preceding fiscal year, and the number of officers against whom charges were brought has decreased by about 9 per cent. The number of charges for neglect of duty has again increased this year, being about 32 per cent more than the preceding year. On the other hand, the number of charges for abuse of official position or authority has decreased by slightly more than 33 per cent. At the close of the year there were 34 cases on hand on which final action had not been taken.

PROVINCIAL PERSONNEL.

The following table shows the number and nationalities of provincial officials in office on June 30, 1912, the number of provinces and the percentage of total of American and Filipino provincial officers:

Provincial officers.

	Ameri- cans.	Fili- pinos.	Total.
Governors.....	7	31	38
Treasurers.....	22	11	33
Secretary-treasurers.....	3	1	4
Supervisor-treasurers.....	1		1
Secretaries.....	1		1
Supervisors.....	1		1
Third members.....		20	20
Fiscals.....	1	27	28
Lieutenant governors.....	8	7	15
Total.....	44	97	141

Percentage of total:	
Americans.....	31.20
Filipinos.....	68.80
Provinces organized under Act No. 83.....	31
Provinces organized otherwise.....	7
Total.....	38

MUNICIPAL PERSONNEL.

The number of municipalities, townships, and settlements on June 30, 1912, and of municipal and township officers, and the percentage of the total of American and Filipino municipal and township officials are shown in the following table:

Municipal and township officers.

	Americans.	Filipinos.	Total.
Presidents.....	5	803	808
Vice presidents.....	3	805	808
Secretaries.....		620	620
Treasurers.....		620	620
Secretary-treasurers.....	1	187	188
Councillors.....	18	7,106	7,124
Justices of the peace.....	20	492	512
Auxiliary justices of the peace.....	4	218	222
Notaries public, including city of Manila.....	81	1,332	1,413
Total.....	132	12,183	12,315

Municipalities.....	725
Townships.....	83
Settlements.....	1,183
Total.....	1,991

Percentage of total:	
Americans.....	1.07
Filipinos.....	98.93

The table showing the percentage of the total of American and Filipino provincial and municipal officers appearing in the last report is herewith completed to June 30, 1912:

Years.	Provincial officers.					Municipal and township officers, including justices and notaries public.				
	Americans.		Filipinos.		Total.	Americans.		Filipinos.		Total.
	Number.	Percentage.	Number.	Percentage.		Number.	Percentage.	Number.	Percentage.	
1903.....	86	26.54	238	73.46	324	24	0.17	14,102	99.83	14,126
1904.....	87	37.82	143	62.18	230	44	.39	11,289	99.61	11,333
1905.....	80	24.60	246	75.40	326	58	.50	10,725	99.50	10,783
1906.....	60	24.69	183	75.31	243	68	.63	10,774	99.37	10,842
1907.....	50	34.25	96	65.75	146	88	.77	11,350	99.23	11,438
1908.....	49	32.66	101	67.34	150	82	.69	11,760	99.31	11,842
1909.....	47	31.54	102	68.46	149	81	.66	12,275	99.34	12,356
1910.....	39	27.86	101	72.14	140	102	.81	12,417	99.19	12,519
1911.....	43	29.25	104	70.75	147	108	.84	12,685	99.16	12,793
1912.....	44	31.20	97	68.80	141	132	1.07	12,183	98.93	12,315

The reason for the apparent increase in the percentage of American provincial officials is that there were 11 offices of third members of provincial boards, all formerly held by Filipinos, vacant at the end of the present fiscal year, the incumbents thereof having resigned their respective offices to become candidates for other elective offices at the general election held on June 4, 1912. The vacancies thus created had not as yet been filled at the time this report was being prepared. Had these been filled by Filipinos, as they all will be, the percentage of Filipino officers would have been 71.05 per cent.

Of the American provincial officers, one-half, or 22, are provincial treasurers, 7 are governors of specially organized provinces, and 8 are lieutenant governors of subprovinces. The number of Americans reported in the above comparative table as officials other than provincial officials include 81 notaries public in Manila and in the provinces and 24 justices or auxiliary justices of the peace in the Moro

Province, Mountain Province, Province of Mindoro, or on military or naval reservations. There are six American municipal officials in municipalities organized under Act No. 82, the remainder being appointive municipal officers in the Moro Province.

PROVINCIAL AND MUNICIPAL AFFAIRS.

NEW LEGISLATION AFFECTING PROVINCIAL AND MUNICIPAL GOVERNMENTS.

The Second Philippine Legislature during its second session, October, 1911, to February, 1912, enacted the following laws of direct interest to provincial and municipal governments which are organized under the provincial and municipal government acts:

Act No. 2083 authorizes the Governor General to loan to provinces and municipalities for the construction of public works, more particularly those of a revenue-producing character, a certain portion of the gold-standard fund created by Act No. 938.

Act No. 2091 creates the office of fiscal for the Province of Batanes.

Act No. 2096 distributes the taxes paid by holders of franchises between the insular government and the provinces and municipalities within which the franchises are operated.

Act No. 2099 exempts from the penalty imposed for failure to brand and register large cattle those persons who voluntarily present animals owned by them for registration even though the animals are over 2 years old and the owners would therefore have been liable to punishment for failure to register if complaints had been made.

Act No. 2121 creates boards for the purpose of fighting the locust pest. The boards consist in each province of the members of the provincial board and four members appointed by the director of agriculture. Municipal officers are required to assist the locust boards. The boards may require the inhabitants to work in destroying or collecting locusts. The regulations must be approved by the director of agriculture who is authorized to allot from an appropriation of ₱15,000 per annum such sums to the provinces as may be necessary.

Act No. 2123 authorizes provincial boards to make appropriations to pay wages for not to exceed 90 days, and medical attendance, transportation, and hospital fees to unclassified employees and laborers injured in line of duty, and burial expenses and small gratuities to the families of such employees and laborers as die from injuries so received.

Act No. 2127 authorizes a redistribution of internal-revenue taxes subject to the approval of Congress in accordance with section 5 of the act of that body approved August 5, 1909. Licenses on theaters, museums, cockpits, concert halls, pawnbrokers, circuses, billiard halls, and retail dealers in *tuba*, *bassi*, and *tapuy* go to the municipality. The cedula tax collections are divided in equal moieties between the provinces and municipalities wherein collected. The remaining internal revenue collected from July 1, 1912, is divided, 7 per cent to provincial governments for general purposes and 14 per cent to municipal governments for general purposes also. Of this 14 per cent one-half must be devoted to free public primary schools. The proportionate numbers of non-Christian inhabitants in provinces and

municipalities reduce the percentage specified. In provinces in which a double cedula tax is collected an additional 7 per cent accrues to the road and bridge funds of such provinces. Manila is a province and a municipality under this act.

Act No. 2129. This act authorizes municipal councils to establish registration of mechanics and day laborers. The municipal secretary has charge of the registration. The register is an open public one. Municipal treasurers in towns in which councils have established these registrations shall ascertain when issuing cedula who are mechanics or day laborers and make list of the same. This list is required to be turned over to the secretary to be entered in the registry. When such mechanics or laborers accept work or labor the secretary is required to make memoranda of the principal features of the contract or occupation in his register and when the contract terminates to note that fact. No fees are chargeable. Reports from the secretary are required to the bureau of labor.

Act No. 2131. This act confers upon justices of the peace jurisdiction to try violations of regulations adopted by provincial boards for the suppression of agricultural pests.

Act No. 2146. This act authorizes appropriations by provincial boards of not to exceed ₱40 a month to enable one or two students of the provinces to follow a professional career in the University of the Philippines or any governmental educational institution of Manila. Appointees must be residents of the province, not over 21 years of age and of good conduct and physical fitness. They must have completed one official course in the high school and their parents must be unable to defray the expenses. The board determines the profession or professions for which it will grant the allowance. Applicants are examined by the superintendent of schools of the province. On completing such a course of higher education students are required to perform duties pertaining to their career for the province during a period equal to that in which they received the allowance.

Act No. 2149. This act authorizes municipal councils to license, regulate, or prohibit the keeping of dogs, and the killing of them when at large, and to require owners of cattle, sheep, and goats to keep such animals from running at large unless in charge of some person.

Act No. 2151 authorizes municipal councils to enroll and train auxiliary volunteer firemen not to exceed 10 even where the municipal police are fewer in number. (Heretofore the volunteer firemen could not exceed the number of municipal policemen.)

Act No. 2156 reorganizes municipal boards of health and authorizes provincial boards to divide their provinces into sanitary divisions containing one or more municipalities; for each division a president is appointed by the bureau of health, who must be a qualified physician. He performs his duties under the bureau of health and they are prescribed in detail. A stock of drugs and medicines is required to be kept by each municipality for the use of the sanitary presidents. The expenses are defrayed by the "health fund," which consists of an appropriation of not less than 5 nor more than 10 per cent of municipal general fund and a like sum from provincial funds. Poor municipalities are exempted from providing for these expenses.

Act No. 2157. This act authorizes municipal councils with the approval of provincial boards to grant revocable licenses to con-

struct and operate tramways under certain restrictions and upon the filing by the licensees of the maps or plans of the proposed tramway and the deposit of ₱1,000 to secure completion under the conditions imposed.

Act No. 2159 regulates motor vehicle traffic throughout the Philippine Islands, prescribes regulations for licensing automobiles and drivers, provides penalties, and takes from all inferior entities the authority to issue licenses or to impose fees for the use of automobiles. Municipal councils therefore now have no jurisdiction.

Act No. 2165. This act authorizes persons to cut and take for themselves from the public forests without license and free of charge timber other than of the first group, firewood and forest products necessary for house building, fencing, boat building, and for personal use for the period of 10 years. Timber thus taken may not be exported from the province. The director of forestry with the approval of the secretary of the interior may set aside for the people of municipalities, townships, or settlements suitable forest tracts known as "communal forests" upon which the inhabitants may exercise the privilege described. Where the area of a municipality is large two tracts may be set aside. The tracts are administered by the bureau of forestry. Where no suitable land lies within or near the municipality a tract in the neighborhood may be set aside. For the purpose of building houses of strong material, inhabitants may even cut timbers of the first group, except ebony, camagon, or lanete.

Act No. 2169. This act in 34 sections provides for an efficient police force in each municipality. The director of constabulary is to prepare regulations for the government, discipline, and instruction of police. Members of the force are subject to examination, physical as well as mental. The purpose is to permit only healthy and competent persons to enter the force, and by increasing the pay wherever possible to create an *esprit de corps*, to provide uniforms, etc., and to make the service attractive. The act provides that the Legislature annually shall provide funds for the purpose of assisting in the creation and maintenance of this police force in such municipalities as are unable financially to bear the cost. The appropriation from insular funds is absolutely necessary to carry out the essentials of this regulation, since practically every municipality is now devoting as great a share of its revenue as practicable to the maintenance of police, and the provincial governments are not able to render financial assistance without neglecting other equally important public duties.

Act No. 2170. This act changed the date for the general elections of Delegates to the Assembly and of provincial and municipal officials to the first Tuesday of June, 1912, and provides that these elections shall henceforth take place every fourth year on the same day. The act also grants an appeal from courts of first instance to the supreme court in contests of elections for provincial governors.

Act No. 2171 remits all unpaid taxes on machinery forming a part of real estate which accrued prior to January 1, 1912, and exempts from taxation agricultural machinery being part of real estate which does not exceed ₱200 in value.

REPORTS OF PROVINCIAL GOVERNORS.

The reports of provincial governors have been submitted to you as received, and the important features touched upon therein have been, I believe, discussed under appropriate heads in this report.

PROVINCIAL FINANCES.

Direct administrative control is exercised by this office over the 31 regularly organized provinces and the Province of Batanes.

All elective provincial officers (governors and third members) are Filipinos and 13 provinces have Filipino treasurers or acting treasurers.

The fiscal year for provincial governments was changed by Executive Order No. 54, effective June 1, 1912, to coincide with the calendar year, as was recommended in my reports for 1910 and 1911. This makes uniform the fiscal year for both provincial and municipal governments. It is believed that distinct advantage will accrue if the fiscal year for the insular government also be changed to conform with the calendar year.

There was no remission of land tax granted during the year.

The date for the collection of the land tax without penalty was extended from June 1 to June 30 in order that no one who was a qualified elector and registered during the month of May might, by reason of becoming delinquent in the payment of land tax on June 1 and voting at the general elections June 4, become guilty, perhaps unwittingly, of a violation of the election law, which disqualifies delinquent taxpayers as voters.

All provincial governments continued the collection of the ₱2 cedula (poll) tax during the year. The proceeds of this tax were ₱1,778,996 and available solely for the maintenance, repair, and construction of roads and bridges.

The interest-bearing deposits of provincial funds on June 30, 1912, amounted to ₱4,140,250, as compared with ₱3,605,000 on the corresponding date last year.

By reason of the change in the fiscal year hereinbefore mentioned there are not at hand comparative financial statements of provincial governments for the 12-month period ending June 30, 1912, nor for that ending December 31, 1911. However, the report of the insular auditor will undoubtedly contain compiled data available for comparative purposes as well as detailed statements of receipts and expenditures of provincial governments.

The maintenance and construction of roads and bridges have been given preferential attention by provincial governments in accord with the division of activities between insular, provincial, and municipal governments. Detailed information as to the results obtained will be found in the report of the bureau of public works by which maintenance and construction projects have been executed. In Capiz, Iloilo, and Isabela modern provincial buildings have been completed and a reenforced-concrete jail in Iloilo. The reenforced-concrete provincial building, jail, and storehouse at Cabanatuan, which is to be the new capital of Nueva Ecija, are nearing completion, and as soon as ready for occupancy the provincial capital will be transferred to that point from its present location at San Isidro.

Opportunity for much-needed progress in public sanitation seems to have been provided by legislation which has been mentioned under a previous heading in this report and detailed discussion of which I understand is to be found in the report of the director of health.

The Philippine Exposition, held in Manila February 3 to 11, 1912, was participated in by 25 of the regularly organized provinces and 5 special or non-Christian provinces. The provinces taking part were given free space and light in the exposition buildings, and the expenses of transporting exhibits from provincial capitals to the exposition grounds and return were paid from insular funds appropriated for exposition purposes. The then provincial treasurer of Iloilo, Mr. W. W. Barclay, who was on temporary duty with the executive bureau, was detailed as director of the 1912 exposition. A comprehensive and creditable showing of agricultural and industrial products was made by the provinces. The exhibits, which included the interesting and instructing feature of actual manufacture on the ground of many industrial products, occupied four large buildings and cost approximately ₱50,000. The exposition was in every way a distinct advance over those of previous years and must be of far-reaching value. It seems not unreasonable to anticipate that the information and experience gained in these annual insular expositions will be manifest in the preparation and selection of material for the exhibit of the Philippine Government at the Panama-Pacific International Exposition to be held in San Francisco in 1915.

MUNICIPAL FINANCES, EXCEPT THE CITIES OF MANILA AND BAGUIO.

The following is a consolidated statement of municipal receipts and disbursements for the municipal fiscal year, January 1 to December 31, 1911, taken from the report of the bureau of audits:

	General fund.	School fund.	Cemetery fund.	Total.
RECEIPTS.				
Sundry revenue.....	₱1,705,195.59	₱12,379.49	₱14,544.05	₱1,732,119.13
Revenue from taxation:				
Internal revenue—				
Percentage.....	682,907.20	682,837.56		1,365,744.76
Cedulas.....	913,458.45			913,458.45
Licenses.....	445,782.76			445,782.76
Weights and measures.....	37,506.08			37,506.08
Cart tax.....	18,360.43			18,360.43
Land tax, 1910 and previous years.....	152,776.73	176,712.23		329,488.96
Land tax, 1911.....	536,834.70	601,536.91		1,138,371.61
Property tax.....	45,128.83			45,128.83
Licenses, municipal.....	545,378.82			545,378.82
Franchise tax.....	2,941.84			2,941.84
Total receipts from taxation..	3,381,075.84	1,461,086.70		4,842,162.54
Other receipts.....	34,689.04	120,004.16		154,693.20
Transfers between funds.....	331.00	316,024.77	2,962.29	319,318.06
Total miscellaneous.....	35,020.04	436,028.93	2,962.29	474,011.26
Total receipts.....	5,121,291.47	1,909,495.12	17,506.34	7,048,292.93
Grand total.....	6,576,355.92	2,790,270.30	52,184.65	9,418,810.87

	General fund.	School fund.	Cemetery fund.	Total.
DISBURSEMENTS.				
Administration:				
Salaries of—				
Officers and employees.....	P1, 631, 503. 60	P1, 297, 402. 19	P718. 86	P2, 929, 624. 65
Police, jailers, and guards.....	889, 198. 28	-----	-----	889, 198. 28
Maintenance of—				
Police, jailers, and guards.....	96, 841. 08	-----	-----	96, 841. 08
Prisoners.....	78, 376. 66	-----	-----	78, 376. 66
Rentals.....	44, 327. 25	56, 746. 39	-----	101, 073. 64
Office expenses.....	192, 789. 66	-----	-----	192, 789. 66
Traveling expenses.....	18, 248. 11	-----	-----	18, 248. 11
Incidental expenses.....	282, 392. 02	26, 510. 13	-----	308, 902. 15
Justice.....	180, 604. 15	-----	-----	180, 604. 15
Interest on bonds and loans.....	17, 105. 04	582. 09	-----	17, 687. 13
Operation telephones.....	671. 83	-----	-----	671. 83
Industrial operation expenses.....	879. 07	35, 625. 82	-----	36, 504. 89
Total administration.....	3, 432, 936. 75	1, 416, 866. 62	718. 86	4, 850, 522. 23
Maintenance roads, bridges, buildings, etc.....	459, 512. 65	34, 469. 21	11, 737. 67	505, 719. 53
Total expense operation.....	3, 892, 449. 40	1, 451, 335. 83	12, 456. 53	5, 356, 241. 76
Permanent improvements:				
Roads, bridges, buildings, and cemeteries.....	501, 645. 55	484, 898. 98	1, 377. 11	987, 921. 64
Equipment.....	198, 852. 92	42, 619. 19	40. 00	241, 512. 11
Total permanent improvements and equipment.....	700, 498. 47	527, 518. 17	1, 417. 11	1, 229, 433. 75
Miscellaneous credits:				
Repayment of loans.....	77, 837. 03	10, 437. 50	-----	88, 274. 53
Transfers between funds.....	318, 987. 06	-----	331. 00	319, 318. 06
Balance Dec. 31, 1911.....	1, 586, 583. 96	800, 978. 80	37, 980. 01	2, 425, 542. 77
Total miscellaneous credits.....	1, 983, 408. 05	811, 416. 30	38, 311. 01	2, 833, 135. 36
Grand total.....	6, 576, 355. 92	2, 790, 270. 30	52, 184. 65	9, 418, 810. 87

Deducting the transfers between funds, the net amount available for expenditures was P9,099,492.81, a gain of P59,001.11 over the preceding year. Comparison with the statement for the preceding year shows a gratifying increase in expenditures for permanent improvements.

The constantly increasing burden laid on municipal governments, by reason of better organization and more up-to-date methods, carries with it an increase in the expense of administration. As mentioned in my report for 1910, and repeated in 1911, the rate of municipal taxation is absolutely inadequate to properly maintain a satisfactory system of government. To meet the changed conditions, municipalities should be authorized, in their discretion, to impose additional local taxation, and they should participate to a larger extent in revenues now insular.

LOANS TO PROVINCES AND MUNICIPALITIES.

The problem of financing the construction of municipal and provincial public works including particularly water-supply systems, school houses and other necessary public buildings, sanitary markets, permanent bridges and roads, seemed in great part to have been provided for by the authority contained in an act of Congress for the issue of bonds. In practice, however, it was found that rarely a project of immediate need and within the financial resources of the municipality concerned demanded a sum of money sufficient to warrant the

expenditure of time of both the legislative and executive branches of the government necessary to authorize and to complete the other preliminaries incident to a bond issue, which in amount would be so small as to be of doubtful interest to investors in such securities. Accordingly in 1907 a beginning was had in financing these projects by the investment of trust funds which the insular government had on deposit with banks in the United States or in the vaults of the insular treasury, and which, by their nature, could not be required for a long period of years as in the case of sinking funds. These investment loans to provincial and municipal governments had been made only after careful examination by this office of the project both from the standpoint of investment and from that of the public interest to be served. The necessary and duly authenticated documentary evidence of the indebtedness and of all conditions regarding expenditure of the loan and of the payment of interest and repayment of principal to the insular government, is executed in each instance before the funds are placed to the credit of the borrowing provincial or municipal government, and no precaution is omitted in each transaction which good business practice requires. In no instance has any default occurred in the payment of interest, payable quarterly, or on principal account, annual payments.

On July 1, 1911, the total amount of loans to provincial and municipal governments was ₱1,345,244.97. During the year new loans placed increased the total of these investments to ₱3,795,079.94. This increase was made possible by the provisions of Act No. 2083 which authorizes the insular treasurer, with the prior approval of the Governor General, to invest not to exceed 50 per cent of the gold standard fund "in loans for periods not to exceed 10 years to provinces and municipalities to aid in the construction of public works, particularly those of a revenue-producing character, at 3 per centum interest per annum." This made available approximately ₱9,000,000, of which one-half is temporarily set aside for construction loans to the Manila Railroad Co. Therefore, approximately ₱4,500,000 became immediately available for loans to provincial and municipal governments. It is to be noted that loans from the gold standard fund may be made for periods not exceeding 10 years, and the interest rate is fixed at 3 per cent. Special funds previously made available for such loans were limited to 2 years in the case of the insurance fund, and to 5 years for other funds, and the annual rate of interest to 4 per cent. It is apparent that the investment of the special funds of the government in these loans is productive of greater interest earnings than could ordinarily be obtained on fixed bank deposits and the requirements enforced in placing these loans make them quite as conservative investments as would be Government bonds, which in effect their securities are. Upon the enactment of the statute making available a portion of the gold standard fund for investment as stated above, a representative of the executive bureau was assigned to the special duty of investigating each project for which loan application had been received and has given practically his entire time to this work in the field.

Loans have been made to provincial governments in considerable sums to provide for the construction of permanent roads, thereby advancing by from one to two years the progress of this work, which is carried out in accord with the general scheme of the bureau of public works. These loans also were to a degree relief measures to

provide employment for labor in those districts where the last rice crop was a partial or complete failure, and are payable within 18 months from date of approval. Loans for the construction of bridges have been confined to those projects of great urgency and of concrete or steel construction to be executed by the bureau of public works. The cost of many of these projects will be less than the annual saving to the planters and merchants by reason of the reduced cost of freight and passenger transportation by the customary types of wheeled vehicles, and the consequent increased use of motor vehicles.

Applications for loans for road and bridge construction are taken up with the director of public works and his views are considered before definite action is taken by this office. Applications for loans for erecting school buildings are similarly taken up with the director of education.

Loans to municipalities for the construction of modern sanitary markets are given preferential consideration in accord with the terms of the statute authorizing loans from the gold standard fund, which requires that public works "of a revenue producing character be given preferential attention." The public market in each city and village in these islands is an institution, the importance of which as a factor in the daily life of the people can hardly be understood without personal study on the spot.

The greater number of the markets of the Philippine Islands have been of bamboo or wood and thatch construction, without floors, and generally insanitary. The majority of them have been let by municipalities to contractors and the result naturally has been that the contractor bent all his efforts toward securing immediate profits, and practically nothing has been expended on the upkeep and sanitation of the market. The modern markets now being constructed are of reinforced concrete, with concrete floors, and facilities for perfectly cleansing them. They are open on all sides and free ventilation is assured.

Particular attention is given to the selection of sites for modern markets, a representative of the bureau visiting a municipality before the project is determined and aiding the municipal officials in their selection of a site and of the class of buildings best adapted thereto. Among the requirements for a market site are that it contain at least 1 hectare (2.471 acres) of land and have certain distinct boundaries and good drainage, and be so situated as to be convenient for both buyers and sellers. The general plan followed for market building provides for one or more central buildings of from 12 to 30 meters in width, and length suitable for the site, the main building being encircled by small bazar stalls or stores facing the central building. The buildings are constructed with concrete floors and pillars, trusses of wood or steel, and roofs of galvanized iron or tile. The stalls and stores are so arranged that they may be closed and securely locked. All entrances to modern markets are provided with iron gates, to be closed at night. In the markets of the old types persons renting space therein were permitted to use their stalls as dwellings. In the new markets no one but the caretaker may stay within the inclosure at night. It will be seen that this change in itself tends to better hygienic and sanitary conditions.

A feature of modern market construction, second only to the expected improvement in general health conditions, is found in the

increased revenue accruing to the municipality in every case where modern markets of approved type have been installed. In the case of San Pablo, Laguna, a loan was made to the municipality for the construction of a modern market which was opened to the public on June 8, 1910, and cost ₱24,000. The receipts from the old market were ₱2,160 per year. The receipts from the new market are at the rate of ₱12,392 per annum, an increase of ₱10,232 per annum, or 473 per cent. The increase in the annual income from the present market is 42 per cent of the investment, and it will be noted that the municipality could repay the cost of the modern building, ₱24,000, in two years from the market receipts alone. The loan, however, was granted for 10 years, and the municipality is now contemplating the installation of a water-supply system estimated to cost ₱85,000 for which a loan for a period of 10 years will be granted. This loan can be repaid from the market receipts.

The municipality of Angeles, Pampanga, in 1908 and 1909 received from its substantial old-style market building an average annual revenue of ₱4,091. In October, 1909, a new modern concrete market building, costing ₱9,145 was opened to the public, and the market receipts for the following year amounted to ₱5,419, a gain of ₱1,328, or 32 per cent, in the annual market income. This gain constitutes a return of 14 per cent on the money invested.

In the municipality of San Fernando of the same province, receipts from the old-style market for the fiscal year ending June 30, 1909, amounted to ₱3,590. On July 1, 1909, two modern reenforced concrete market buildings, costing together ₱19,679, were opened to the public, and the receipts for the following year amounted to ₱6,472, an increase of ₱2,882, or 80 per cent. This increase constitutes 14 per cent on the investment.

In 1906 the municipality of Pagsanjan, Laguna, received from its former market ₱3,001. In November of the following year a new concrete market building, costing ₱19,531, was opened to the public. The average market income for the subsequent four years was ₱5,961, excluding 1910, when the market was rented by contract and but ₱4,551 were received therefor. The increase in market revenues amounted to ₱2,960, or 98 per cent. This modern market is paying 30 per cent on the money invested, and the increased revenue amounts to 15 per cent of the investment.

The municipality of Iloilo, Province of Iloilo, has a modern reenforced concrete market, opened to the public on January 15 of the present year, which cost ₱69,302. The average receipts from the former market for the years 1909, 1910, and 1911 were ₱13,057. Receipts from the new market, based on collections from January 15 to June 15 of the present year, will be ₱25,629, or an increase of ₱12,572, 96 per cent more than the revenue heretofore. The increased market earnings amount to 18 per cent on money invested.

These cases are typical. Increased market revenue means to the municipality an increased borrowing capacity which permits the erection of school houses, water works, municipal buildings, the construction of first-class streets and bridges, and other improvements; the payment of adequate salaries to teachers in primary schools; and other advances in municipal public service.

It is the intention, when nearby towns have recognized market days, to encourage the arrangement of the daily markets in such

order that it will be possible for producers to make regular rounds of the markets from town to town. With the many first-class roads now being completed throughout the provinces, this will gradually build up arteries of trade and the general prosperity of the country will inevitably increase.

An important feature of the municipal market is its effect on the economic condition of the people as a whole. It is the expressed opinion of many uninformed persons that even the local trade of the Philippine Islands is in the hands of persons other than Filipinos, and that the Filipino has neither the business capacity nor the desire to take into his own hands the trade of his country. That this is untrue becomes apparent to any observer of conditions in municipal markets, in some of which in the Province of Iloilo the daily sales amount to as high as ₱20,000.

Practically the entire business of the markets is conducted by Filipinos.

The largest municipal water-supply system outside of the city of Manila, the Osmeña water-works system of Cebu, was formally opened on February 13, 1912, and much serious interest has been aroused in other municipalities in securing potable water for domestic use either from artesian wells or by gravity supply from streams or springs on the adjacent mountains or foothills. The advantages resulting from the standpoint of public health, low insurance rates, and in many other ways are so obvious that discussion of the desirability of devoting public funds at the earliest possible date to the supply of potable water seems quite unnecessary. One instance of the immediate financial value of an adequate water supply for reducing the fire risk, however, is so significant that it seems worthy of mention: The case of the municipality of Cebu where during the past 10 years the total loss of buildings and contents burned is estimated at ₱10,000,000, and during that period insurance rates increased from 2.4 per cent to 3.5 per cent and some insurance companies withdrew entirely. It is estimated that the saving to property owners in fire-insurance premiums by reason of reduced rates, once the new water system is in full operation, will approximate ₱100,000 per annum. The total cost of installing the water supply was ₱550,000, and the cost of operation will be nominal. In the report of the bureau of public works will doubtless be found detailed data regarding the Osmeña water works and other projects constructed and under construction during the year.

The greater facilities now at the command of the Governor General for the execution of permanent improvement projects have afforded opportunity for the undertaking of systematic effort in those phases of municipal improvement which come within the class of public works as distinguished from political administration. There is in process of formation in this office a section which will devote itself to the encouragement and assistance of municipal governments in the formulation of a definite program for the location and construction, as funds become available in future, of public buildings, layouts for streets, playgrounds, and other public places of proper areas and locations. It is hoped that in addition to the material results for which direct effort may be made there will result distinct betterment in the general efficiency and tone of municipal administration and urban life, from the direct pursuit of which the insular and provincial

governments are to a great degree inhibited by the autonomy granted to municipalities by organic law under which they are constituted.

Through the kind offices of the Bureau of Insular Affairs, there has been obtained and arrangements made for continuing to secure the best literature available on the subject of municipal betterment in the United States and in Europe. Decided interest is evidenced already in many municipalities and the circulation of periodicals and other literature pertinent to the subject is beginning to attract attention. Each provincial treasurer, the officer having immediate supervision of provincial finance, and many municipal treasurers now receiving periodicals devoted to the subject under discussion. With the present trend it seems reasonable to believe that relatively as great interest will soon be taken in these islands in the improvement of municipal government and civic progress as in other countries of the civilized world. The hope for positive results necessarily must rest with the younger generation, and therefore the constant effort of this office is to coordinate its work with that of the public schools and also to enlist the interest of the element which is just entering into political activities and will soon control public affairs in the municipalities.

EXTRADITION PROCEEDINGS.

There have been no extraditions from the islands during the year.

Two men have been returned from Hongkong, one charged with frustrated murder, who returned voluntarily, and one who violated his conditional pardon for counterfeiting revenue stamps and was returned after proceedings.

A fugitive from justice, under sentence for abduction, was arrested in Hongkong. Upon an application for a habeas corpus a court in Hongkong ordered his discharge, on the ground that the extradition papers from the Philippine Islands were insufficiently certified, that the political status of the Philippine Islands had not been established so as to determine whether the extradition treaty between Great Britain and the United States applied to the Philippines, and because of doubt whether the extradition request should be made by the Governor General or the American consul general. The record in this case has been forwarded to the Bureau of Insular Affairs for appropriate action.

PARDONS.

At the beginning of the year 66 petitions for pardon were pending determination, and during the year 1,047 new petitions were received. The disposition of all these is set forth in the following table:

Pardon statistics for the fiscal year 1911-12.

Petitions on hand at the expiration of the last fiscal year.....	66
Petitions received during the fiscal year.....	1,047
Denials.....	775
Full pardons granted.....	137
Remissions of unserved portions of sentences.....	299
Commutations of sentences.....	163
Petitions referred to municipal board of Manila (violations of ordinances).....	4
Petitions pending determination.....	148
Committee on pardons:	
Cases considered and reported upon during the fiscal year.....	143
Cases pending.....	149

The number of cases reported as disposed of appears larger than the sum of the petitions received and those pending at the close of the previous year. The difference is due to the fact that the cases disposed of include fellow convicts who did not present petitions.

PASSPORTS.

One hundred and seventy-one passports were issued to citizens of the United States and 68 to citizens of the Philippine Islands, a total of 239 as compared with 220 for the year before.

CABLEGRAMS.

During the year 393 cablegrams were sent, and the same number were received. Six thousand and seventy excerpts were furnished other bureaus and individuals. The total cost of cablegrams sent amounted to ₱23,255.91, and the cost of this service to the executive bureau was ₱7,950.56, the balance having been collected from other bureaus or persons.

TRANSPORTATION.

The contracts already in force for the transportation of employees of this Government and members of their families between the United States and Manila, and vice versa, were unchanged, and in addition the Bureau of Insular Affairs entered into an agreement with the Bank Steamship Line for transportation of Government employees between Seattle and Manila at a rate of \$100. The passenger-carrying steamers of this line have been withdrawn temporarily, however, so that it is not now possible for our employees to secure the advantage of this rate.

Transportation from Manila to San Francisco was secured on United States Army transports for 304 persons, of whom 263 were adults and 41 children. This includes 8 servants, 27 conditionally pardoned prisoners, and 35 indigent Americans. Transportation from Manila to Nagasaki on Army transports was secured for 20; to Portland, Oreg., for 1; to Honolulu for 4; and from Nagasaki, Japan, to San Francisco for 5.

Requests were issued by this office for transportation to the United States across the Pacific on commercial lines for 183 adults, 20 children, 8 Filipino students, and 1 servant, and 81 adults and 8 children were given orders for transportation at the contract rate from Manila to New York City via the Suez Canal.

In all, transportation was arranged for 635 persons.

CONTRACTS FOR GOVERNMENT ADVERTISING.

The contracts with three local newspapers for government advertising, which were in force at the end of the last fiscal year, under authority of Concurrent Resolution No. 5, adopted January 15, 1912, by the Philippine Legislature, were continued, and "El Ideal" added to the list.

During the year 744 official advertisements were sent to the newspapers under contract, this being an increase of more than 10 per cent over the preceding year.

TELEPHONE SUPERVISION.

Under the provisions of Executive Order No. 20, series of 1912, this bureau has taken over all duties relating to telephone service for the central Government in the city of Manila. This arrangement was inaugurated by the Governor General upon representation by the Philippine Islands Telephone & Telegraph Co., that they could give better service if the company were required to do business with only one office. Under this order all requests for new installations in existing service are sent to the executive bureau, which arranges such matters with the company, and also makes payment to the company in a lump sum for all telephone service, afterwards prorating such cost against the bureaus and offices served.

The whole matter of telephone service is now receiving careful investigation, and improvement is resulting.

OFFICIAL GAZETTE.

As has been explained in prior reports, the Official Gazette is published, in English and Spanish, at the expense of the executive bureau, the editorial work being done by the reporter of the supreme court. No immediate change in this arrangement is contemplated. On June 30, 1912, there were 262 paid subscriptions to the Official Gazette (English), and 1,016 paid subscriptions to the Gaceta Oficial (Spanish).

PUBLIC DOCUMENTS.

At the beginning of the fiscal year 1,186,027 public documents were on hand, and during the year 685,835 were received from the bureau of printing, 673 bound and 72,000 unbound documents from the Government at Washington, making a total of 1,944,535. The general distribution for the year was 641,530, while 5,092 bound and 8,764 unbound documents were transferred to the Philippine General Library, and 1,217 to the Philippine Assembly, a total distribution of 656,603, leaving a balance on hand at the end of the fiscal year of 1,287,932 documents.

DIVISION OF LEGISLATIVE RECORDS.

The secretary of the Philippine Commission is ex-officio chief of the division of legislative records, and his report sets forth in detail the work of this division.

DIVISION OF ARCHIVES, PATENTS, COPYRIGHTS, AND TRADE-MARKS.

During the year 1,169 sets of documents relating to the departments of the interior and public works, etc., of the former Spanish Government in these islands, were arranged and classified, as well as 5,356 civil and criminal case records. Four hundred and twenty-seven copies of notarial documents were made, consisting of 545,640 words, for which work the sum of ₱1,453.46 was collected. In addition, a number of official copies of documents were prepared for other government bureaus and offices, for which no charge was made. Numerous reports relating to government buildings have

been prepared, in addition to memoranda on other related subjects contained in the Spanish archives.

There were received and filed 39 certificates of title and leases of government property; also, 11 contracts for construction work and supply of materials.

There were received from notaries public for file 484 books containing notarial records; and 18,647 cattle brands for registration.

While there was a slight falling off in the number of trade-marks, only 173 having been presented for registration as against 177 for the year previous, there was a considerable increase in the registration of corporations; 21 foreign corporations and 99 domestic stock corporations presented their articles of incorporation for registration. During the previous year, only 13 foreign and 72 domestic corporations were registered. The fees for the registration of trade-marks, etc., amounted to ₧9,391.23, and for the registration of corporations ₧6,449.

The total receipts of the division for the fiscal year were ₧17,293.69 as compared with ₧14,383.15 for the previous year.

TRANSLATING DIVISION.

The total number of translations made by this division amounted to 14,575 folios, which is an increase of 1,651 folios over the preceding year. Newspapers and periodicals to the number of 3,654 were reviewed, an increase of 1,513, and press reports amounting to 1,078 folios were prepared. The revenue to the executive bureau, representing the charge for translation work performed by this division for other bureaus, amounted to ₧2,702.25. In addition, interpreters have been furnished for committee work of the Legislature and for other government work, as has been customary in past years. The force of this division has been gradually reduced, and it is probable that the minimum working force possible for some time to come has been reached.

RECORDS DIVISION.

The increase in the number of written communications received during the year was nearly 9 per cent over the year before, 161,464, as compared with 148,428. There were prepared 472,038 brief and index cards, as compared with 412,120 for last year. Including communications of all classes and documents and publications, there were sent out through the records division 785,892 pieces, as compared with 911,219 for the year 1911.

The question of making a change in our present method of preparing, indexing, and filing correspondence, on lines similar to those recently adopted in various Government offices in Washington, is now under consideration with the object of simplification and greater celerity of dispatch, and it is probable that a new system will be inaugurated on the first of the coming calendar year.

BUREAU PERSONNEL.

One change was made in the office staff during the year, Mr. W. T. Nolting, special agent, having been appointed collector of internal revenue on February 21, 1912; Mr. W. W. Barclay was appointed special agent to fill this vacancy on April 27, 1912.

The arrangement of personnel was changed to some extent at the beginning of the year. The administration division, which had theretofore included the provincial and legal sections, became the office of the chief clerk, and the provincial and legal sections became separate divisions, which were designated the provincial division and the miscellaneous division, respectively.

On June 30, 1911, 174 officials and employees were carried on the pay roll. These figures include the janitor and his force which were not shown in the report of last year. During the year there were 68 appointments, 27 resignations, 11 transfers from the bureau, 6 removals, and 3 deaths; and on June 30, 1912, 195 persons were employed by this bureau. On July 1, 1911, the monthly pay roll was ₱22,653.56, and on June 30, 1912, this had increased to ₱25,673.80.

THE BAGUIO SEASON.

The Baguio season, from the standpoint of the employee, was a success. From the standpoint of the office the slight inconveniences in the dispatch of work are more than offset by the improved health of the employees and their consequent greater efficiency. A regular program of athletic sports was maintained out of office hours, and this plan, in combination with the invigorating atmosphere, had a notably beneficial effect. Not only is greater vim manifested in the performance of the work of the bureau, but in their outdoor athletic work the men have become better acquainted, have learned to subordinate the individual tendencies to the coordination of teamwork, and are acquiring a greater measure of that *esprit de corps* so necessary for satisfactory service.

The consul general for Great Britain and the consuls for France and Germany each spent a portion of the season in Baguio, and it is understood that Great Britain has authorized the removal of its consulate general to the summer capital during the season hereafter. This, presumably, will have weight with other Governments and may result in the transfer of the entire corps of consuls general and consuls de carrière in future seasons.

CONCLUSION.

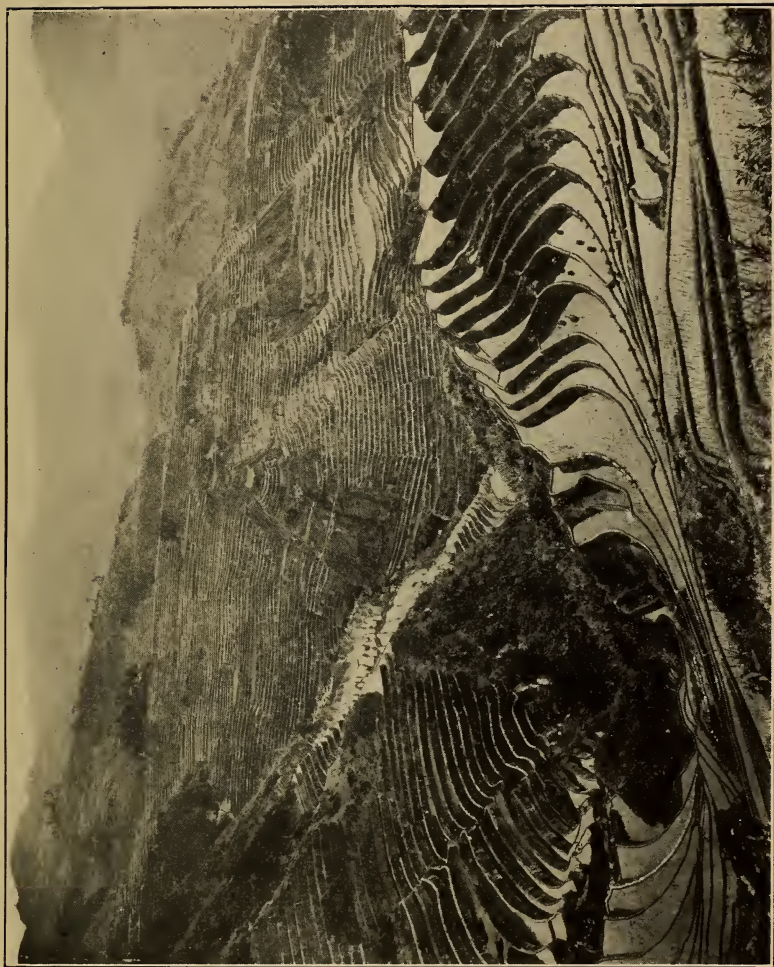
In concluding this annual report the undersigned desires to give due recognition to the prime factors of whatever success the efforts of the bureau have attained during the year; the confidence and encouragement extended by higher authority; the uniformly favorable and helpful attitude of the public and of all branches of the insular, provincial, and municipal governments; and the high degree of efficiency of the staff and chiefs of divisions of the bureau who have kept the entire personnel, with rare exception, so imbued with interest in work and with a spirit of self-sacrifice in the performance of duty that the typical attitude in every grade of the office force has been a degree of diligence rarely found in employees in either public or private service. The fact that in addition to the seven-hour day which has been the official time requirement during practically the entire year there has been given voluntarily by the employees of the bureau from their own time a total of 38,649 hours and 56 minutes, which represents 5,521 days 2 hours 56 minutes, equivalent

to the time of the entire personnel for 1 month and 7 days, is significant. It is regretted that more material recognition may not be given the sacrifice of time and strength represented by this large amount of voluntary effort on the part of the bureau personnel. There is not included in the foregoing figures anything to indicate the overtime service rendered by officers of the bureau whose reward is had, like that of the responsible heads of private enterprise, in the results they obtain in the undertakings for which they are more or less directly responsible.

Respectfully submitted.

F. W. CARPENTER,
Executive Secretary.

The GOVERNOR GENERAL,
Manila, P. I.



THE WONDERFUL RICE TERRACES OF IFUGAO.

General view of a valley.

REPORT OF THE SECRETARY OF THE INTERIOR.

REPORT OF THE SECRETARY OF THE INTERIOR.

THE GOVERNMENT OF THE PHILIPPINE ISLANDS,
DEPARTMENT OF THE INTERIOR,
Manila, September 18, 1912.

GENTLEMEN: I have the honor to present the eleventh annual report of the operations of the department of the interior, which, except in certain instances clearly set forth, covers the year ending June 30, 1912.

WORK FOR THE NON-CHRISTIAN TRIBES.

In spite of some unforeseen difficulties, work for the non-Christian tribes has progressed steadily and on the whole most satisfactorily. The untimely death of Mr. Olney E. Bondurant, assistant to the governor of Palawan; the absence during a part of the year of the latter official and also of the governor of the Mountain Province, the governor of Nueva Vizcaya and the lieutenant governor of Ifugao, together with the resignation of Capt. Louis J. Van Schaick, United States Army, governor of Mindoro; and that of Gov. Frederick Lewis, of Agusan, have kept the special provincial government service extraordinarily shorthanded. Such a condition is especially to be deplored for the reason that the personal element plays a very large part in the effective control of savage and barbarous peoples, and that no man, however competent, can attain to his maximum usefulness in such work until after he has won the confidence and the regard of his people and has gained knowledge of them which can be attained only by practical experience. The fact that the absence of so large a proportion of the working force has not resulted in trouble demonstrates the stability of the service which has been established and the effectiveness with which the men remaining on duty have performed their difficult tasks.

ANTISLAVERY LEGISLATION.

On August 7, 1911, the Philippine Commission passed the following act:

[No. 2071.]

AN ACT Prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Mountain Province and the Provinces of Nueva Vizcaya and Agusan, and providing punishment therefor.

By authority of the United States, be it enacted by the Philippine Commission, that:

SECTION 1. Whoever, except in pursuance of the judgment of a court of competent jurisdiction or other lawful authority, shall hold any person in slavery or involuntary servitude, or deliver any person to another person to be held in slavery or involuntary servitude, shall, on conviction thereof, be punished by imprisonment for not less than one year nor more than twenty years and by a fine of not less than five hundred pesos and not more than five thousand pesos, in the discretion of the court.

SEC. 2. Whoever shall compel another person, against his will, to render labor or services in payment of a debt, or whoever shall accept labor or services for such purpose performed under such compulsion, with knowledge of that fact, shall, upon conviction thereof, be punished by imprisonment for not less than six months nor more than five years, or by a fine of not less than one hundred pesos nor more than one thousand pesos, or by both such imprisonment and fine in the discretion of the court.

SEC. 3. Whoever shall sell or barter or cause to be sold or bartered, and whoever shall buy or barter or cause to be bought or bartered, any human being, shall upon conviction thereof, be punished by imprisonment for not less than one year nor more than twenty years or by a fine of not less than five hundred pesos and not more than ten thousand pesos, or both in the discretion of the court.

SEC. 4. Upon the trial of any person for violation of any of the provisions of this act, lack of consent of a person under eighteen years of age shall be conclusively presumed.

SEC. 5. One-half of any fine collected under the provisions of this act shall be paid to the injured person and such payment shall not operate to extinguish in whole or in part any civil action which such injured person may have for damages.

SEC. 6. This act shall apply to the Mountain Province and the Provinces of Nueva Vizcaya and Agusan.

It will be noted that this act is applicable only to the Mountain Province, Nueva Vizcaya, and Agusan. The legislative council of the Moro Province long since passed an antislavery law. Like the other acts of this council, it was subject to approval by the Philippine Commission. Such approval was promptly given.

Acts covering this important subject in the territory under the jurisdiction of the Philippine Legislature have heretofore been passed from time to time by the Commission, but have invariably failed to pass the Philippine Assembly. As all of the special government provinces above-mentioned about upon regularly organized provinces, the desirability of having uniform legislation was obvious, but, in view of the long-continued failure of the Philippine Assembly to act, further delay in passing an antislavery law for the remainder of the territory under the legislative control of the Philippine Commission was deemed inexpedient.

The passage of Act No. 2071 rendered immediately possible the release of a considerable number of Ifugaos held in slavery by Filipinos in Nueva Vizcaya.

ANNUAL NORTHERN INSPECTION TOUR OF THE SECRETARY OF THE INTERIOR.

Immediately after the adjournment of the Legislature I made my usual annual inspection of Nueva Vizcaya and the Mountain Province. I was fortunate in having with me the director of agriculture, the acting chief of the Philippine Constabulary, the director of the bureau of science, Dr. R. Rembe of the staff of the Philippine General Hospital, and the assistant executive secretary, who has immediate charge of provincial and municipal government affairs. Most of the territory visited was new to all of these officers and the opportunity afforded them to gain first-hand knowledge of conditions has resulted in bringing them into a relationship to this special work even more helpful than that which before existed.

The need of entertaining the great crowds of wild men who meet the secretary of the interior on these trips is imperative, and at times embarrassing. The gatherings often include large numbers of men who have until recently been bitter enemies, and who are liable to indulge in untimely reminiscences, with unfortunate results, if not

kept actively occupied. This problem was solved in part in a somewhat novel way by taking with us a portable moving-picture outfit and showing our wild friends something of life in a world heretofore beyond their ken. At the same time we ourselves took cinematograph films designed to afford an accurate and permanent record of characteristic scenes and events in the now rapidly changing methods of life of these comparatively primitive tribes.

SITUATION REVIEWED BY PROVINCES AND SUBPROVINCES.

CONDITIONS IN NUEVA VIZCAYA.

Gov. W. C. Bryant returned from leave and temporarily assumed his former duties, his work having been very successfully carried on during his absence by Mr. Norman G. Conner, who was made lieutenant governor of Apayao on Gov. Bryant's return. The latter was soon promoted to the governorship of Agusan. Capt. O. A. Tomlinson, Philippine Constabulary, who had very ably served as lieutenant governor of Ifugao during the absence of Capt. Gallman, was made acting governor of Nueva Vizcaya. Mr. H. J. Detrick, assistant to the governor of Nueva Vizcaya, was promoted to the lieutenant governorship of Amburayan, and Lieut. Wilfrid Turnbull, Philippine Constabulary, was appointed to the position thus vacated.

In spite of this unprecedented series of changes, work in Nueva Vizcaya has progressed steadily. The road and trail system has been extended and improved, and a steadily increasing degree of control has been established over the scattered Ilongots inhabiting the great forest area recently added to the Province. Crimes of violence among them have been fewer than ever before.

An important salt-producing industry has been established by the Province at Salinas, and the cost of this article of fundamental necessity has thus been greatly reduced in Nueva Vizcaya and Ifugao.

The road toward the Isabela border has been pushed as far as existing funds will permit. Thirty-two kilometers have been graded, of which 27 have been surfaced. Approximately 19 kilometers remain to be completed. As unsurfaced road in this region is usable during some 10 months of the year and as this important work must be completed gradually, I think the grading should be pushed to early completion and the surfacing then done as rapidly as funds will permit.

The trail to the Ifugao border has been converted into a cart road over which salt is cheaply transported in large quantities.

CONDITIONS IN THE MOUNTAIN PROVINCE.

The Mountain Province is divided into seven subprovinces, namely, Ifugao, Bontoc, Kalinga, Apayao, Lepanto, Amburayan, and Benguet. It has a governor, a secretary treasurer, and a supervisor or engineer officer. Each subprovince has a lieutenant governor. Its wild inhabitants number some 400,000 and belong to five sharply distinct tribes. All of them, with the exception of the Benguet-Lepanto Igorots have recently been head-hunters. Territorially it is the second largest province in the Philippines. It now has 40 kilometers of road, 227 of cart trail, and 1,126 of horse trail, and the road and trail system is being rapidly extended.

CONDITIONS IN IFUGAO.

The state of public order in the subprovince of Ifugao leaves little to be desired. The very friendly feeling which prevails between Ifugaos and Americans makes the work in this subprovince especially interesting and attractive. The trail system has been greatly improved and rapidly extended. Considerable progress has been made in constructing irrigating ditches. The unprecedented drought caused a serious rice shortage and led many Ifugaos to seek work temporarily in neighboring Provinces, a thing which they would not have dared to do a few years ago.

The return of Capt. Jeff D. Gallman, Philippine Constabulary, from leave in the United States and his resumption of his duties as lieutenant governor were made an occasion of great rejoicing by the people. At the time of my annual visit to Kiangnan, Lieut. Gov. Gallman was lying in the Bontoc hospital recovering from a severe surgical operation. His absence from the festivities was deplored by the Ifugaos, who insisted on singing and dancing in the room in which the telephone was located in order that he might hear the resulting uproar while lying in his bed 70 miles away, and one of the chiefs, standing before the telephone, made a speech for his benefit. The people then insisted on hearing his voice in order that they might be sure that he was still alive.

CONDITIONS IN BONTOC.

During the absence of the governor of the Province his work was performed by Mr. C. W. Olson, the provincial secretary treasurer, who also served as lieutenant governor of Bontoc until the place was filled by the appointment of Mr. Samuel E. Kane, who, as supervisor of the Mountain Province, had long been in charge of its public works. Conditions as to law and order have remained excellent. Cart roads and horse trails are in better condition than ever before.

CONDITIONS IN KALINGA.

With the exception of a short absence in Manila, where he was sent to install and care for the Mountain Province exhibit at the exposition, Lieut. Gov. Walter F. Hale has remained at his post of duty throughout the year and progress in his subprovince has been gratifyingly steady. The trail system has been materially improved and extended and the lieutenant governor has been able to assist Apayao by taking charge of some trail work across the line.

CONDITIONS IN APAYAO.

Conditions in Apayao have for some years been less satisfactory than in any other portion of the Mountain Province. Mr. Norman G. Conner has now been made its lieutenant governor. His previous record for efficiency, coupled with his practical experience as acting governor of Nueva Vizcaya, led me to hope for prompt and material improvement under his administration. This hope has been realized. Trail construction has been pushed and progress has been made in gaining the confidence and good will of the people, without which effective work can not be done. Within two years a good system of communication should be established and there should be close friendly relations with the wild Tingians who inhabit this subprovince.



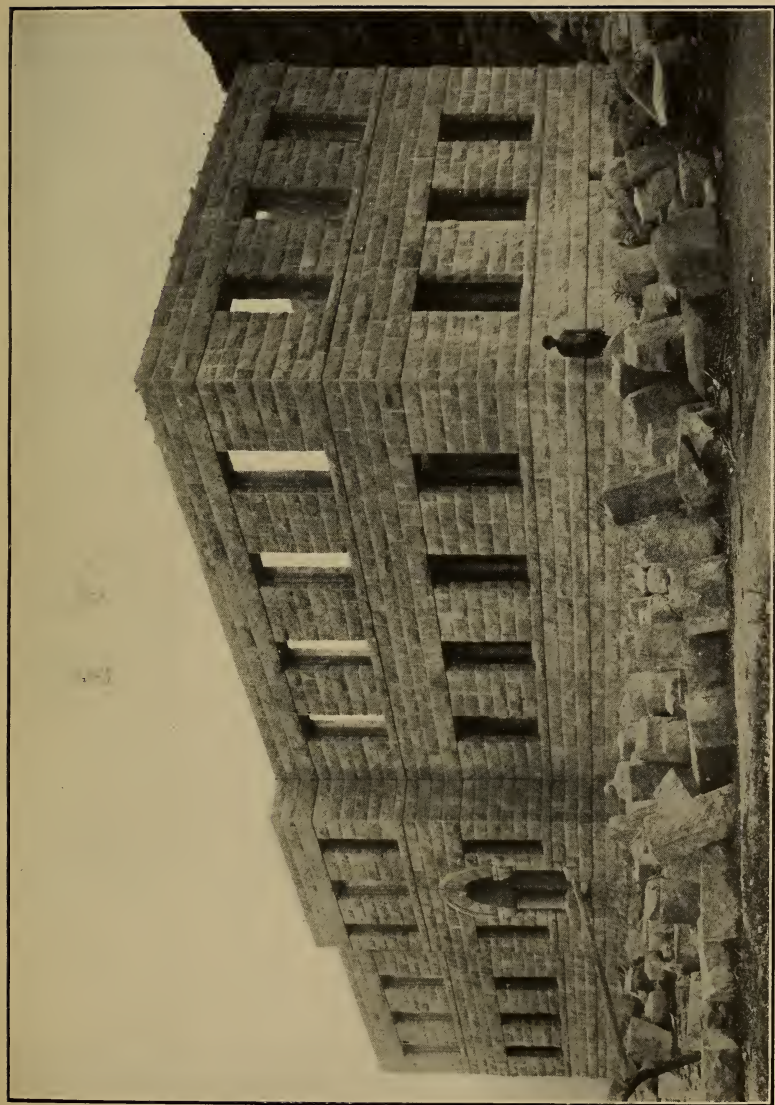
THE WONDERFUL RICE TERRACES OF IFUGAO.

Near view, showing structure of terrace walls.



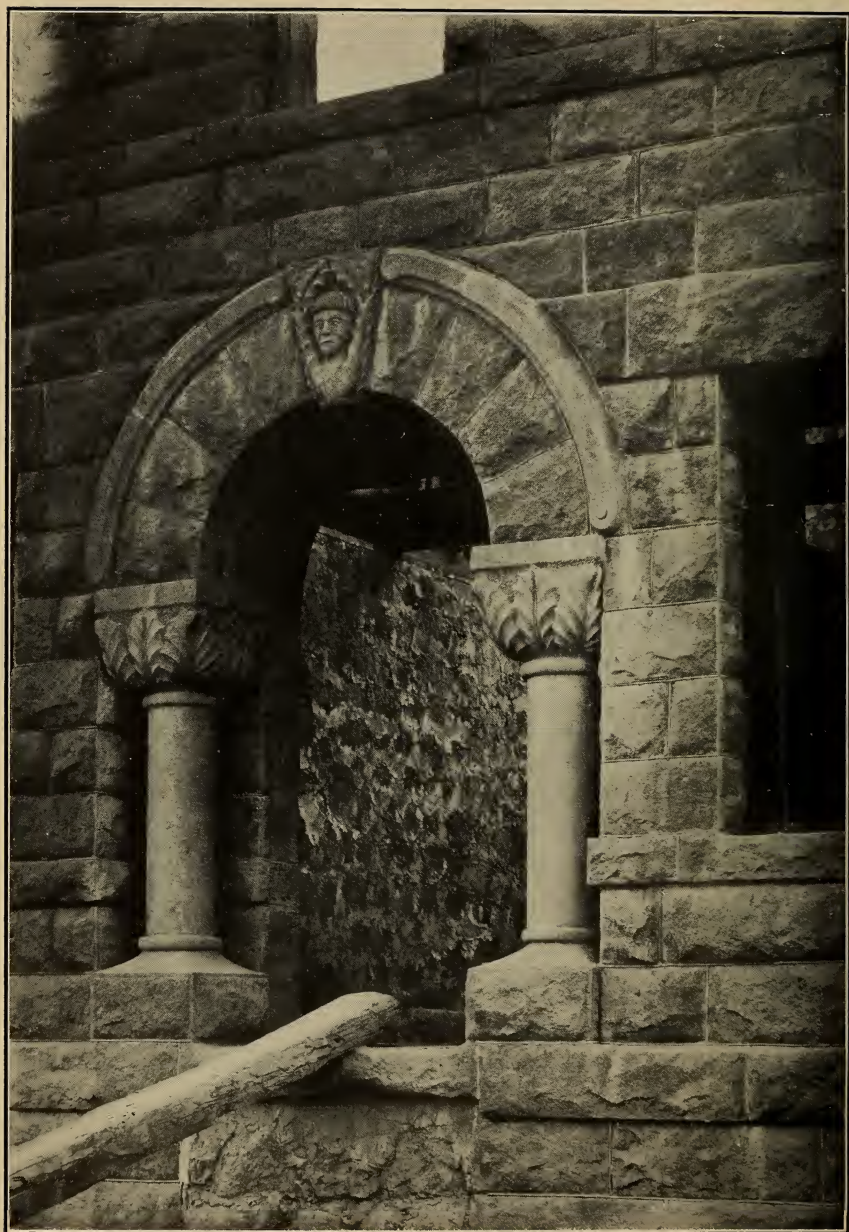
IFUGAO CONSTABULARY SOLDIERS.

These men are brave, efficient, and loyal. They shoot with extraordinary accuracy.



STONE SCHOOLHOUSE BUILT BY IFUGAO BOYS.

This remarkable structure is being erected at Quiangan by Ifugao school boys who are doing all the work under the direction of an American teacher. They have split bowlders, shaped the stone thus obtained, faced it, and are now doing the woodwork on the building.



ENTRANCE_TO STONE SCHOOLHOUSE BUILT BY IFUGAO BOYS.



IFUGAOS BUILDING TRAIL.

This illustration shows work just begun on a steep mountain side.

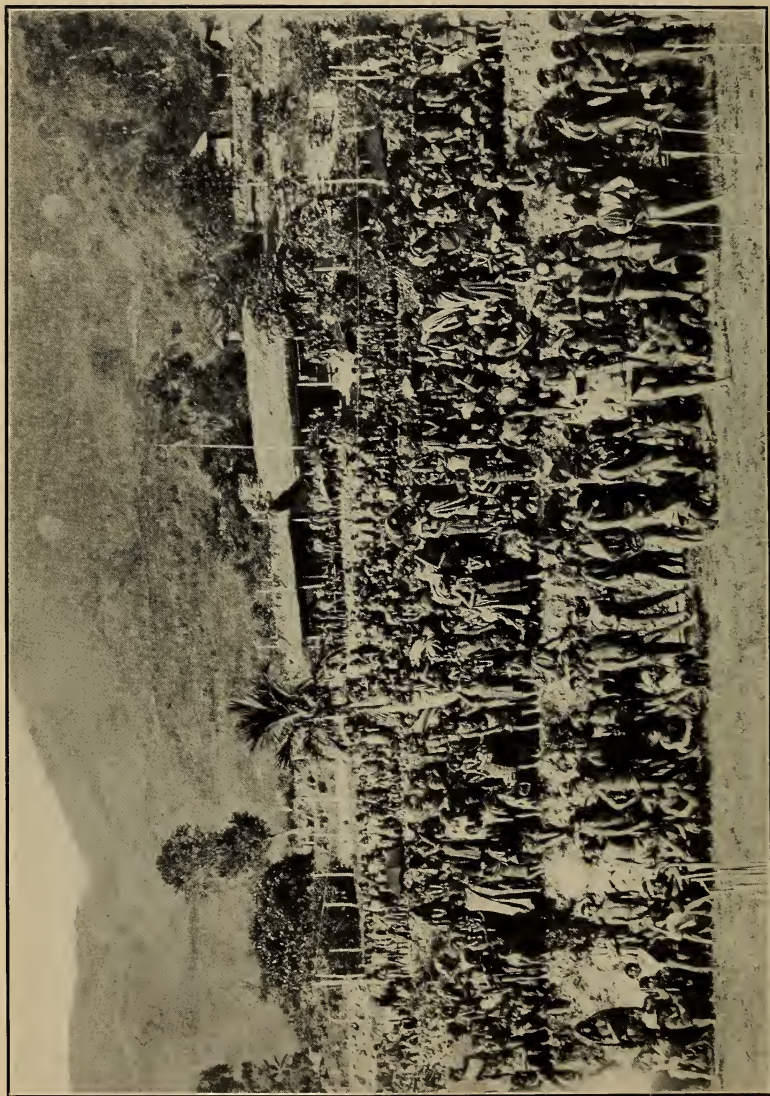


FINISHED TRAIL BUILT BY IFUGAOS.



FINISHED TRAIL BUILT BY IFUGAOS.

Note the irrigation ditch at the left. The grades on many of the trails are such that irrigation water can be carried in ditches beside them for long distances.



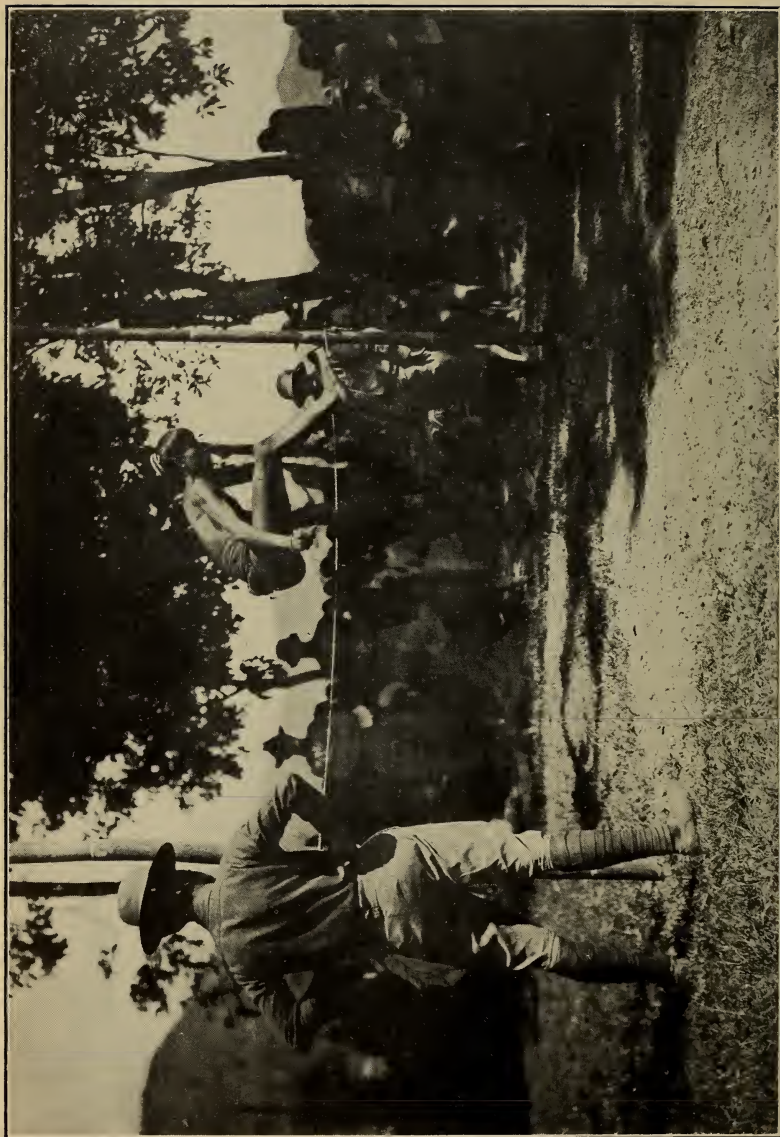
KALINGAS WATCHING ATHLETIC SPORTS AT LUBUAGAN.

For the first time athletic sports were introduced among the Kalingas when the secretary of the interior visited Lubuagan in March, 1912. Contestants were numerous in every event and the spectators were keenly interested.



LANCE THROWING AT LUBUAGAN.

The lance has just left the hand of this powerful savage.



RUNNING HIGH JUMP AT LUBUAGAN.

Without any preliminary training whatever, the Kalingas jumped gracefully and well.

CONDITIONS IN LEPANTO.

The people of Lepanto are for the most part peaceful agriculturists who have never indulged in head-hunting. The presence of a gang of cattle thieves who lived in the mountains near Suyoc and conducted operations as far south as Baguio, made it necessary for me to approve an order to the provincial governor directing certain persons residing in suspiciously inaccessible places for no apparent reason to settle on sites where they would have much better opportunities to practice agriculture and could be readily reached. Before approving this order I gave the people concerned a hearing. No objection was made to the proposed plan.

In Lepanto, as elsewhere throughout the Mountain Province, I found old roads and trails in excellent condition and a considerable mileage of new trails constructed.

CONDITIONS IN AMBURAYAN.

Mr. H. J. Detrick was appointed lieutenant governor of Amburayan on August 8, 1911. Under his administration very satisfactory progress has been made, and there has been a gratifying continuance of the era of good feeling recently brought about between the hitherto constantly warring factions among the Filipino inhabitants of Tagudin, which has become a clean, healthy, and progressive town.

CONDITIONS IN BENGUET.

The peaceful Igorot population of this Subprovince has continued to prosper throughout the year in spite of the unprecedented drought and the resulting crop shortage. The conversion of the former Naguilian Trail into a good cart road, over which automobiles of moderate size can pass, and the inauguration of railroad construction at the Baguio end of the new line have afforded opportunity for profitable employment to every man, woman, and child willing to work.

Acting under instructions from the governor general, I have utilized the provincial organization of the Mountain Province to perform railroad grading, the railroad company paying all laborers direct and reimbursing the Mountain Province for the services of the members of its field force who have been employed. Igorot laborers have thus been kept under the direction of foremen experienced in handling them and in safeguarding their interests, as well as in the maintenance of good sanitary conditions. This opportunity for profitable employment has been a great boon to the Benguet Igorots.

The work of converting the Naguilian Trail into an unsurfaced cart road was accomplished in a short time and at very small cost. Funds have since been made available for surfacing those portions of it which are most likely to break down under heavy cart traffic, and this work is progressing rapidly. The opening of this new line of communication is of material importance to the neighboring Province of La Union, which is thus given an opportunity to send its products to the summer capital. Lieut. Gov. E. A. Eckman is entitled to special credit for the efficient manner in which he has supervised both the construction of this road and the performance of the railroad

grading. He has also served as mayor of Baguio, but as this city, although situated in the Mountain Province, is under the executive control of the governor general I do not report on his activities as such officer.

CONDITIONS IN THE PROVINCE OF MINDORO.

Rapid progress has been made in Mindoro during the year. A small but very useful cement pier has been constructed at the capital. The road and trail system has been rapidly pushed. One can now ride from Calapan to Pinamalayan. The trail system will be extended around the entire island as rapidly as circumstances will permit.

The Filipino towns have become models of cleanliness and good sanitation. They afford a valuable demonstration of what can be done to better shockingly insanitary conditions where effective control is possible. The contrast between sanitary conditions in the Mindoro towns and in the regularly organized provinces is very striking. One most gratifying practical result is that the Mindoro school-houses are all becoming much too small. The towns swarm with happy, healthy youngsters, who are now growing up to useful citizenship instead of meeting the untimely death which awaited so many of the children when almost every yard harbored some reeking source of disease.

The work for the Mangyans has been actively pushed. Our knowledge of these seminomadic but gentle and harmless savages has been materially increased. Some of them have been persuaded to build villages and settle down to a more orderly life. Several new schools have been established for Mangyan children, who prove to be bright, capable pupils.

Many parts of Mindoro suffered very severely from the drought, and some care has been necessary in order to keep the people on the outlying small islands supplied with rice.

After more than five years of faithful and efficient service, the governor of the province, Capt. Louis J. Van Schaick, United States Army, tendered his resignation, anticipating the necessity of returning to his regiment upon the passage of the army appropriation bill then pending, and desiring to enjoy well-earned leave before reporting for duty. The resignation from the special government service of an efficient officer who has profited by so many years of experience is a serious loss. The vacancy has been filled by the appointment of Mr. R. E. Walters, who has long been employed by the bureau of lands in a capacity which has brought him into constant and close touch with the poorer Filipinos, whose rights in the matter of land holdings he has had frequent occasion to defend. It is believed that this experience will especially fit him to protect the interests of the Mangyans, who are still in many instances mercilessly exploited by the Filipinos of the coast towns.

Ability to find profitable employment on the San Jose Estate and on the Mindoro Co.'s holdings has been a valuable asset for the working people of Mindoro during the trying drouth. A few Mangyans, even, have sought employment there.

CONDITIONS IN THE PROVINCE OF PALAWAN.

The provincial service of Palawan and the special province service in general met with a serious and deeply regretted loss in the death

of the assistant to the provincial governor, Mr. Olney E. Bondurant, caused by pernicious malarial fever. He died at Balabac on January 20, 1912, soon after his return from the United States. Mr. Bondurant had immediate charge of southern Palawan, the territory under his jurisdiction including all of the Moro and most of the Tagbanua country. He had rendered very important service in connection with the moving of renegade Moros from the west coast, and had made rapid progress in the establishment of helpful and friendly relations with both Moros and Tagbanuas. He was a fearless, tireless, efficient officer. Even when attacked by the illness which ended his life he refused to give up, but rendered service in the field on the day of his death. His death was keenly regretted by many of the unruly Moros whom he brought under Government control and whose interests he carefully safeguarded as long as he lived.

The vacancy which it created was filled by the appointment of Mr. Lewis Carrigan, who had previously held the position of superintendent of schools in Agusan and had there actively taken part in work for the betterment of wild people.

The Moros of Palawan are now astonishingly friendly. I recently visited their towns without a guard. No member of my party carried a weapon of any sort. At the invitation of the Moro chiefs we sat at meat with them. The wives of the ranking chiefs appeared publicly during our visit. These latter two occurrences are unprecedented in my experience. Datto Tumay, whose men attacked my escort two years ago, showed me with great pride that he had built with his own hands the best house in Bonabona and was himself tilling the largest piece of land cultivated by a Moro in Palawan. Plows and other agricultural implements were requested by the Moros and have been furnished them.

The drought would have produced actual famine in the Moro country had it not been for Government assistance in the form of opportunity to work for rice, the affording of which was highly appreciated and has gone far to promote friendliness.

Most satisfactory progress in dealing with the Tagbanuas has been made possible by the transfer from the west coast of the Moros who formerly so persistently plundered them and the establishment of effective government control over the entire Moro population of Palawan.

The opening of so-called Government exchanges where the Tagbanuas can sell their products and can purchase what they need at reasonable prices has greatly pleased them and is bringing about helpful contact between provincial officials and wild men from the most inaccessible regions.

Trail work has been rapidly pushed. During much of the year it is now possible to ride a horse from Puerto Princesa Bay to Bonabona. An excellent line has been staked across the island from Separation Point to Alfonso XIII, and construction work has commenced.

The Tagbanuas, like the Moros, are beginning to display willingness to settle in villages. Although heretofore somewhat prone to use blowguns and poisoned arrows in the defense of their rights, and in standing off strangers as to whose intentions they entertained doubts, they are naturally industrious agriculturists, raising more than enough rice for their own needs. The opportunity now afforded them to sell their surplus products and to improve their agricultural methods should lead to rapid progress.

In order to prevent trespass by Filipinos upon their cultivated land, a Government reservation has been set aside for them at Aborlan, where a Tagbanua industrial school is located. Families are settling on this reservation in constantly increasing numbers. A large tract of land has been cleared and planted. The school is accomplishing important results, although its work was interrupted during the year by the death of its superintendent, Mr. William M. Wooden, who was drowned in the surf while trying to swim ashore from a launch.

While much has been accomplished in bettering the condition of the people of Palawan, the cost to date in valuable lives has been heavy. Gov. Miller was drowned in the discharge of his duty. Mr. Bondurant, assistant to the governor, died of pernicious fever on the evening of his last day's work in the field. Mr. W. B. Dawson, the first superintendent of the Aborlan School, died of malaria at his post, and Mr. Wooden, the second superintendent, was drowned while hastening back from the provincial capital. The results for which these splendid men paid so dearly are worth the cost if they are to be permanent. Were they to be rendered futile by the premature withdrawal of American control, the price would indeed be dear.

During the absence of Gov. Evans his duties were performed by the provincial treasurer, Mr. Clark, who was already carrying a heavy load at the time he assumed them. Gov. Evans's return from leave made possible the more active prosecution of work in central and northern Palawan and in the adjacent islands.

Encouraged by the results of the sanitary campaign so successfully carried out in Mindoro, I have inaugurated a similar one in the Filipino towns of Palawan. Bad conditions at Puerto Princesa and at Cuyo have already been remedied to a large degree and the work will be carried into the smaller towns and barrios as rapidly as practicable.

Palawan suffered even more severely from the drought than did Mindoro. Coconut palms and even forest trees were killed. Dry weather apparently favored the reproduction of a common caterpillar which became a scourge, eating such crops as the drought spared. In a number of places actual famine was averted only by providing opportunity to labor on public works and obtain payment in rice.

CONDITIONS IN THE PROVINCE OF AGUSAN.

The Province of Agusan has two Subprovinces, Butuan and Bukidnon. Butuan is composed largely of low-lying forest land and swamps through which flow the Agusan River and its tributaries. Bukidnon is largely made up of high, grassy plains forested sparsely if at all. It enjoys a temperate climate, and while wonderfully well watered is without navigable streams. Rainfall is heavy and quite uniformly distributed throughout the year in both Subprovinces, which did not suffer severely even during the recent unprecedented drought.

Four different men have held the post of governor during the year. Acting Gov. Col. John R. White, Philippine Constabulary, was succeeded on September 28, 1911, by Frederick Lewis, promoted from the position of lieutenant governor of Bukidnon.

The capital of Agusan is at Butuan and the principal work of the provincial governor is in the hot, damp Subprovince of the same name. Gov. Lewis's health, which had been weakened by long-continued and arduous service in Bukidnon and was not fully restored, soon began to fail. For this reason he tendered his resignation and I reluctantly recommended its acceptance. He was immediately transferred to an important position in the Mountain Province, where favorable climatic conditions speedily restored him to vigorous health.

The vacant governorship was temporarily filled by the appointment of Capt. G. O. Fort, Philippine Constabulary. Capt. Fort was the ranking constabulary officer in the province and was engaged in an active and effective campaign against Taudid and Hulibayan, the murderers of Mr. Ickis, and the band of outlaws and assassins which they have gathered around them. I greatly regretted the necessity for interfering with this work by imposing on Capt. Fort additional duties, but there seemed to be no other competent man immediately available for the place. As soon as possible it was regularly filled by the promotion of Gov. Bryant of Nueva Vizcaya. Gratifying progress has been made at Butuan, which is now a beautiful town, and in many of the Manobo settlements on the Agusan River and its tributaries. The long-haired wild men from the hills continue to come in, form villages, and settle down to a peaceful and orderly life.

The mileage of navigable rivers is being steadily increased by the removal of obstructions. The upper Agusan was in 1905 cut off from the lower river by earthquakes which caused subsidence over an extensive area with resulting submersion of forests, creation of lakes and swamps, and complete obliteration of the old river banks. Two canals, navigable for good-sized launches, have now been opened through this region.

No trails other than mere footpaths have as yet been constructed in the Subprovince of Butuan.

In the Subprovince of Bukidnon the road and trail system has been extended and improved in a most gratifying manner. Nothing could be more satisfactory than the spirit of the Bukidnon towns, which vie with each other in the building of good roads, the construction of substantial bridges, and the erection of attractive public buildings. The population of the towns grows steadily as the wild men in the hills become convinced of the desirability of coming in and settling. The area under cultivation also steadily increases. The drought left this wonderful agricultural region practically untouched.

At the time we first obliged the people of Sumilao to clean up their yards we found a few old coffee trees badly affected by blight. We suggested that they plant coffee and thus get additional benefit from the work necessary in keeping the yards clean. The resulting good cultivation, unaided by any other means whatever, has so increased the vigor of the coffee bushes as to enable them to resist blight. Two-year old bushes are bearing heavily, while those planted a year earlier are actually breaking down under their burden of fruit. This one small town will ship 3,000 cavans (about 6,330 bushels) of coffee during 1912.

One serious calamity has marred the otherwise uninterrupted progress of this subprovince. Taudid's outlaws raided outlying territory, killing two influential loyal chiefs and a score of men, women,

and children. Requests for constabulary assistance remained long unanswered, as did an urgent demand for a limited number of firearms so that the people might protect themselves. I then appealed directly to the Governor General, with the result that the needed firearms were promptly forwarded and that a company of Philippine Scouts was hurried to the scene of disorder. This scout company rendered most satisfactory service in protecting the towns, restoring the confidence of the people, and dispersing the outlaws. Twenty-five Springfield carbines were effectively used by Bukidnon volunteers, who rendered very valuable service both independently and in cooperation with the scouts. Absolute tranquility has since prevailed. The outlaws were driven back into the Umayam district, in Butuan, where an effective constabulary force awaited them. As a result of the thorough shake-up which they then received, some 400 of them have sought and received permission to settle in Bukidnon, while a considerable additional number have followed a similar course in Butuan.

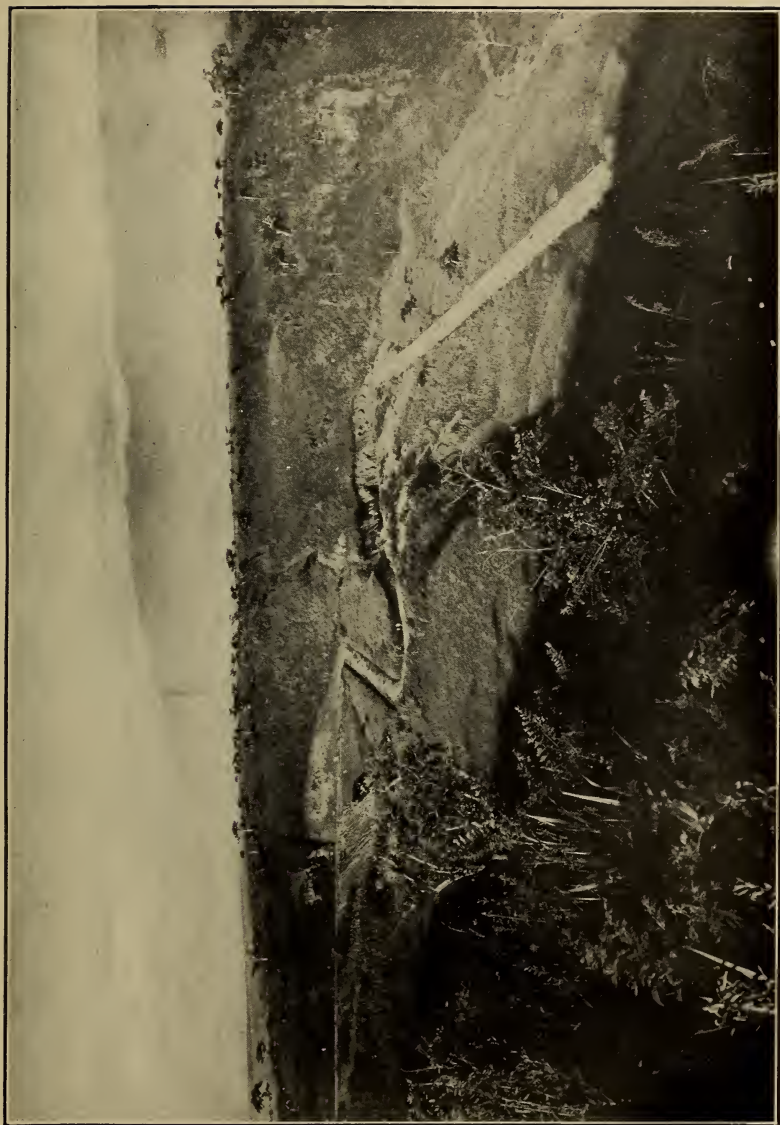
Lieut. Gov. Fortich continues to have extraordinary success in influencing wild men to come in from the hills and establish model villages. At one of the newest and most inaccessible of these, in the very heart of Mindanao, I found the Manobos cutting the grass on their town plaza with a lawnmower and building excellent houses in lieu of the tree dwellings which they had so recently forsaken. The streets were well constructed and clean, and adequate sanitary facilities were present.

The loyalty of these people, when they realized that instead of being oppressed or hunted like wild beasts they are being protected and helped, is really touching.

The people of the Bukidnon towns, far from having experienced hunger, had food to sell. They are now raising corn most successfully. The stalks stand 10 to 15 feet high and produce one to three large ears each. Both Filipino and imported Indian cattle are doing splendidly. Bukidnon is capable of producing draft animals and beef cattle sufficient for the entire Archipelago.

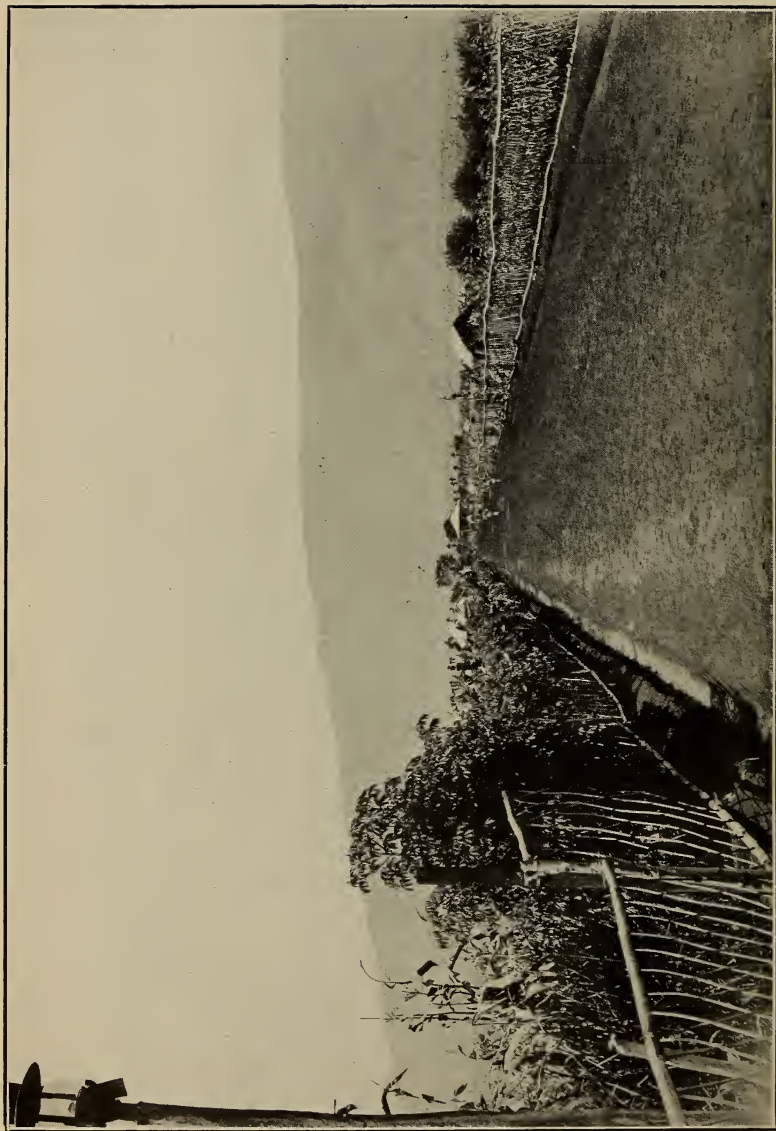
SUMMARY OF CONDITIONS IN BUKIDNON.

When the territory inhabited by the Bukidnons was cut off from Misamis, these people were suffering more severely at the hands of their Filipino neighbors than were the people of any other non-Christian tribe in the Philippines. They were, in many instances, robbed of their coffee, cacao, hemp, and gutta-percha, or were compelled to sell these products at absurdly inadequate prices. No provincial governor had ever visited their country. Their settlements were practically without government. There was, therefore, no check upon the rapacity of those who plundered them. Many members of the tribe who had been baptized and had adopted a civilized life were taking to the hills. Such villages as existed were filthy and insanitary. No food crops were grown in their vicinity. Indeed, the people did not believe that the rich prairie soil surrounding their villages would produce crops. There was not a bridge or a culvert in the subprovince, and travel was often rendered impossible by streams in flood. All agricultural products were necessarily transported on pack animals over excessively bad trails. There was not a mile of road in the subprovince.



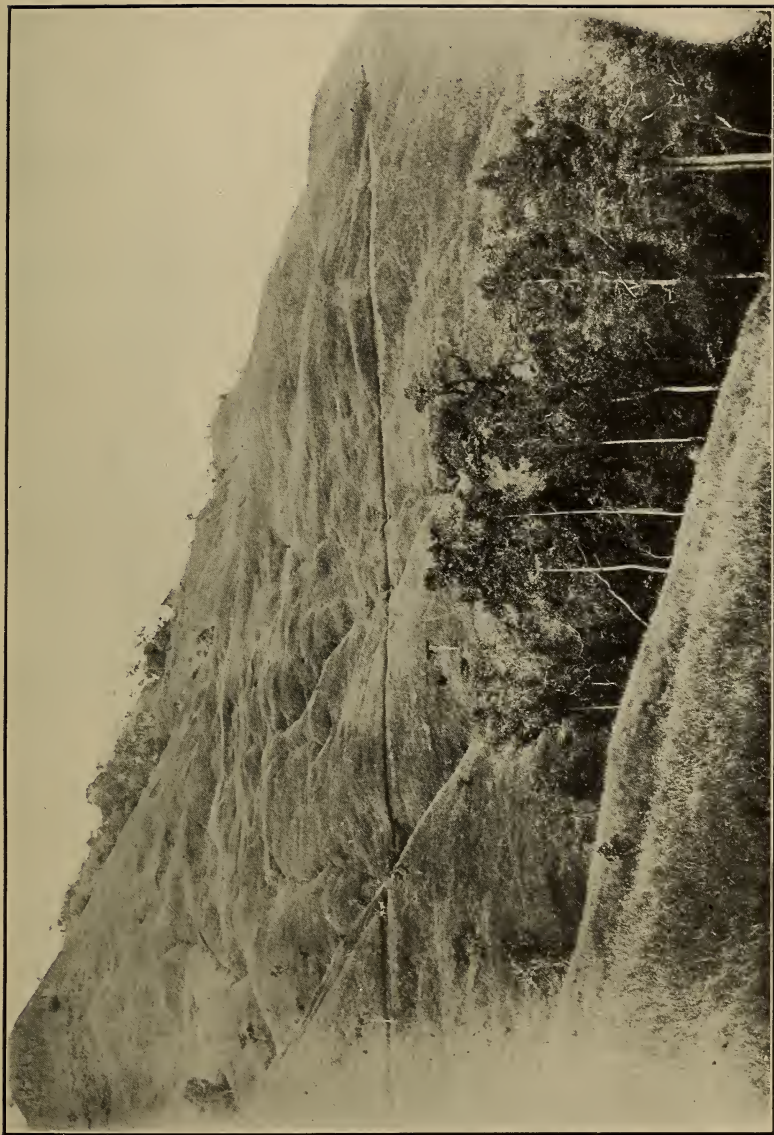
OPENING UP COMMUNICATION IN BUKIDNON.

The main road from the coast at the point where it descends into the Mangima River Canyon.



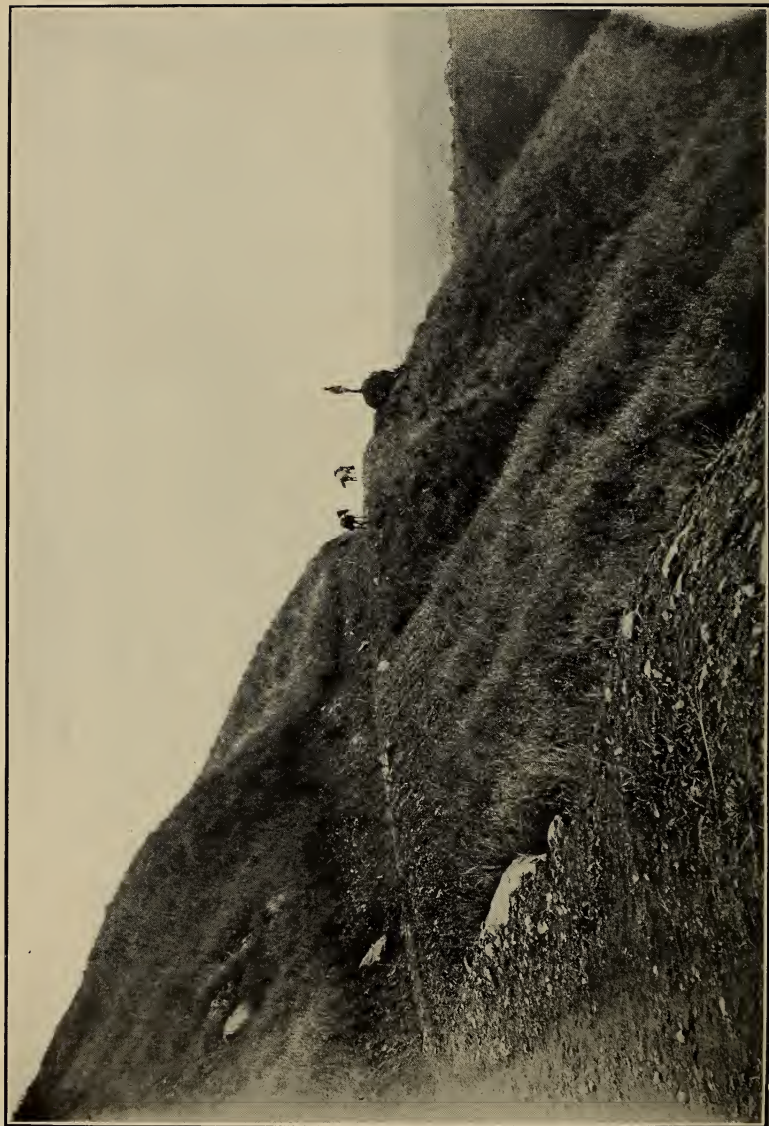
OPENING UP COMMUNICATION IN BUKIDNON.

Typical unsurfaced road in the outskirts of a town. The chief problem connected with road construction in Bukidnon is to obtain surfacing material, the prairie soil being almost entirely free from stone.



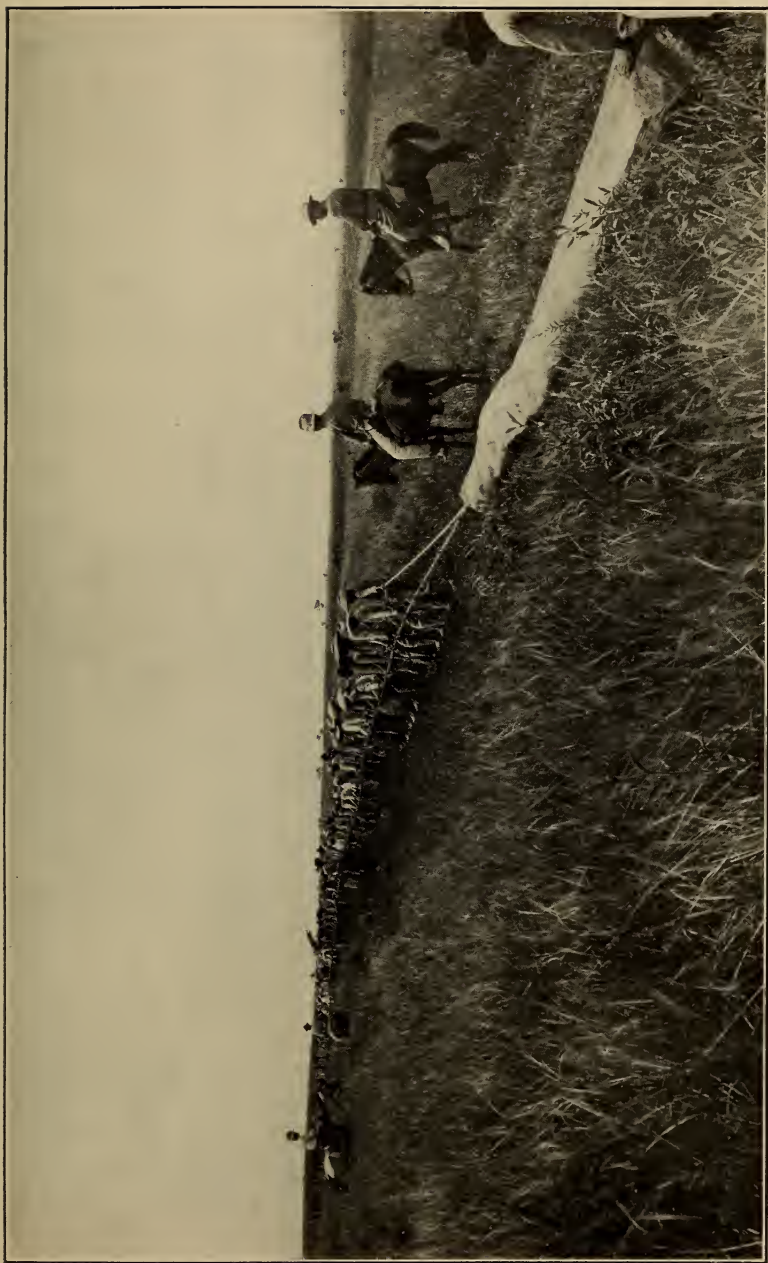
OPENING UP COMMUNICATION IN BUKIDNON.

General view of a stretch of typical low-grade trail for pack animals and mounted travelers. This trail was surveyed and built by Leoncio, a Bukidnon man.



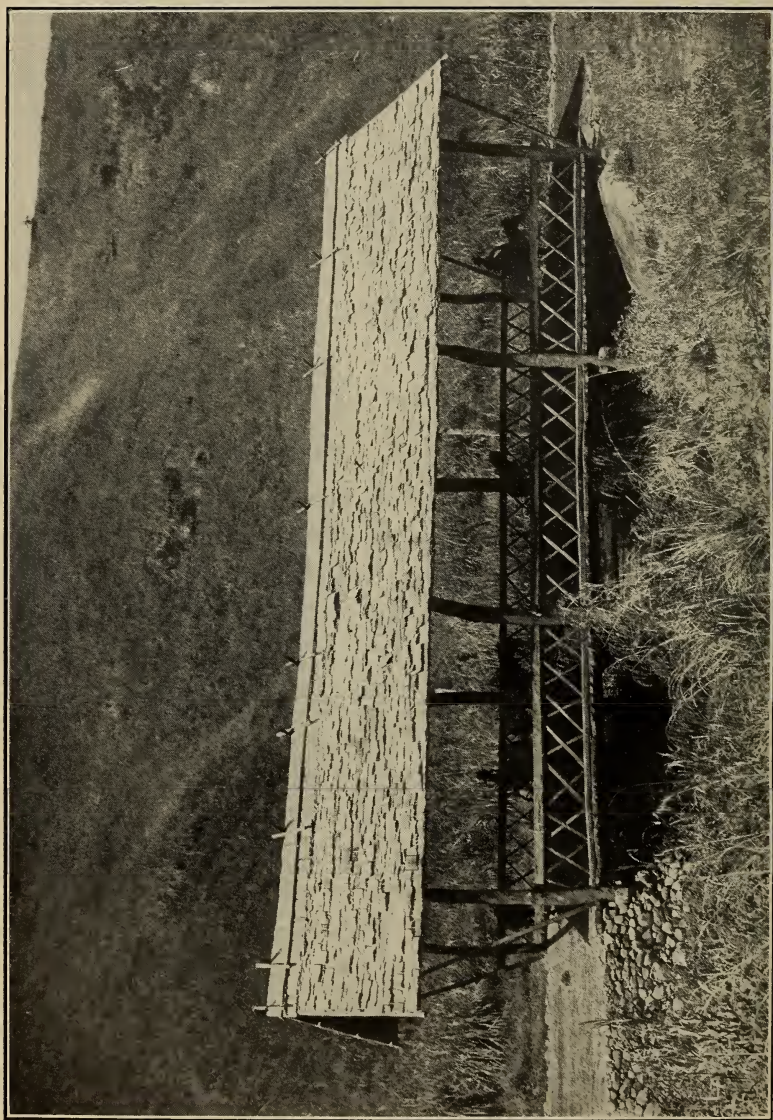
OPENING UP COMMUNICATION IN BUKIDNON.

Typical low-grade trail for pack animals and mounted travelers. Near view to show type of construction.



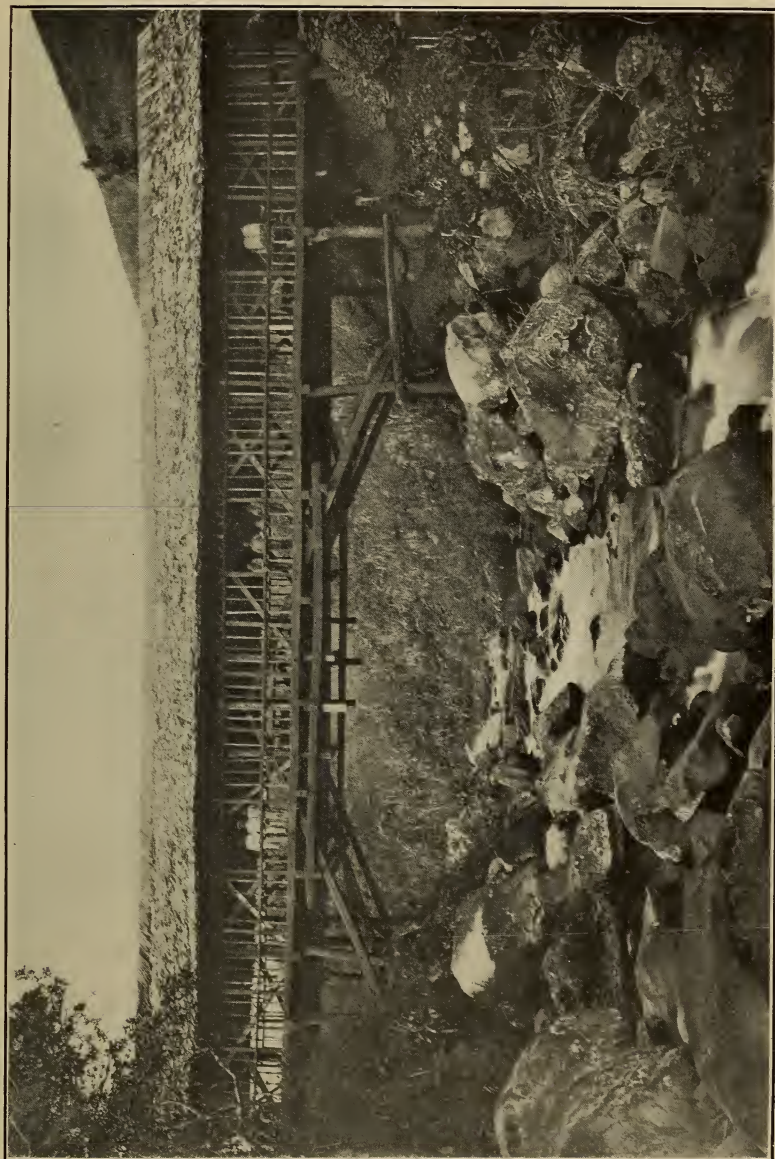
OPENING UP COMMUNICATION IN BUKIDNON.

Bringing in a bridge timber. The heavy hardwood timbers used in bridge construction are often dragged for 10 or 15 miles by hundreds of men. The towns vie with each other in the construction of excellent bridges which cost the sub-Province nothing except the price of the iron bolts required to fasten timbers together.

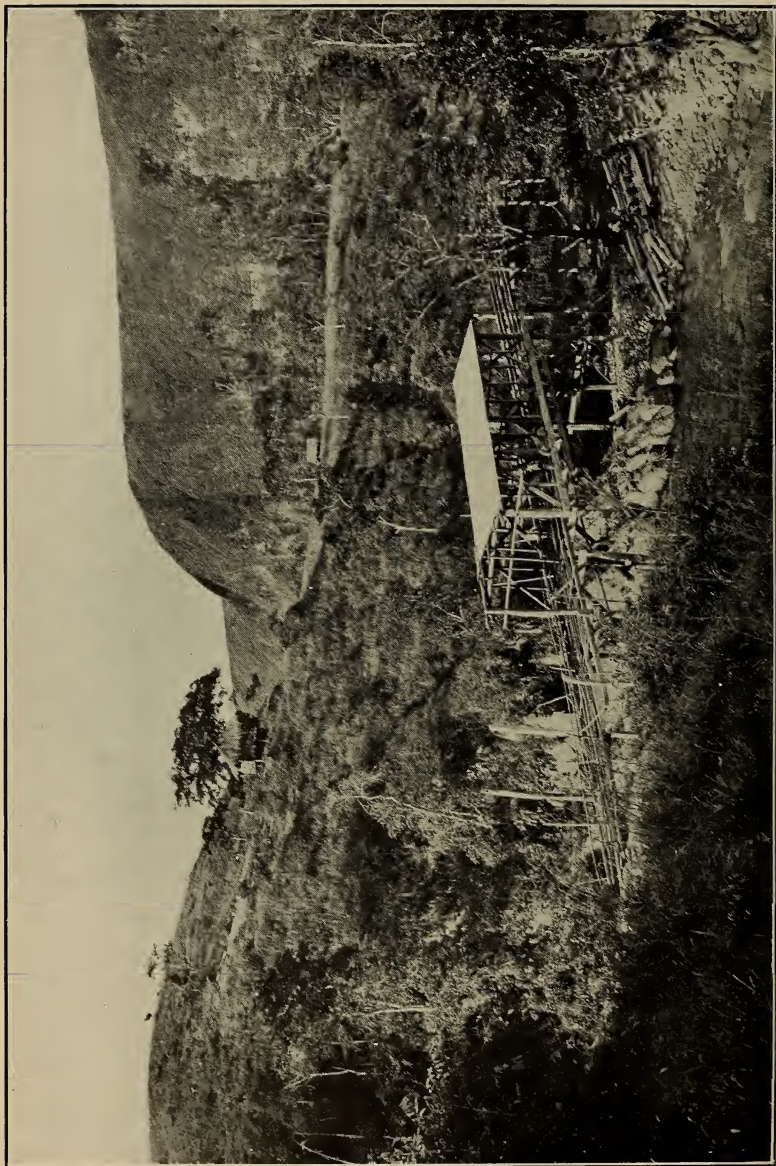


OPENING UP COMMUNICATION IN BUKIDNON.

A typical bridge over a small stream. There are more than 100 bridges between the coast and the subprovincial capital, rendering it unnecessary to ford a single stream. At the outset there was not a bridge or a culvert in the sub-Province and travel was impossible during heavy rains. Now it is never interrupted by high water.



OPENING UP COMMUNICATION IN BUKIDNON.
A typical bridge built entirely by Bukidnon men.



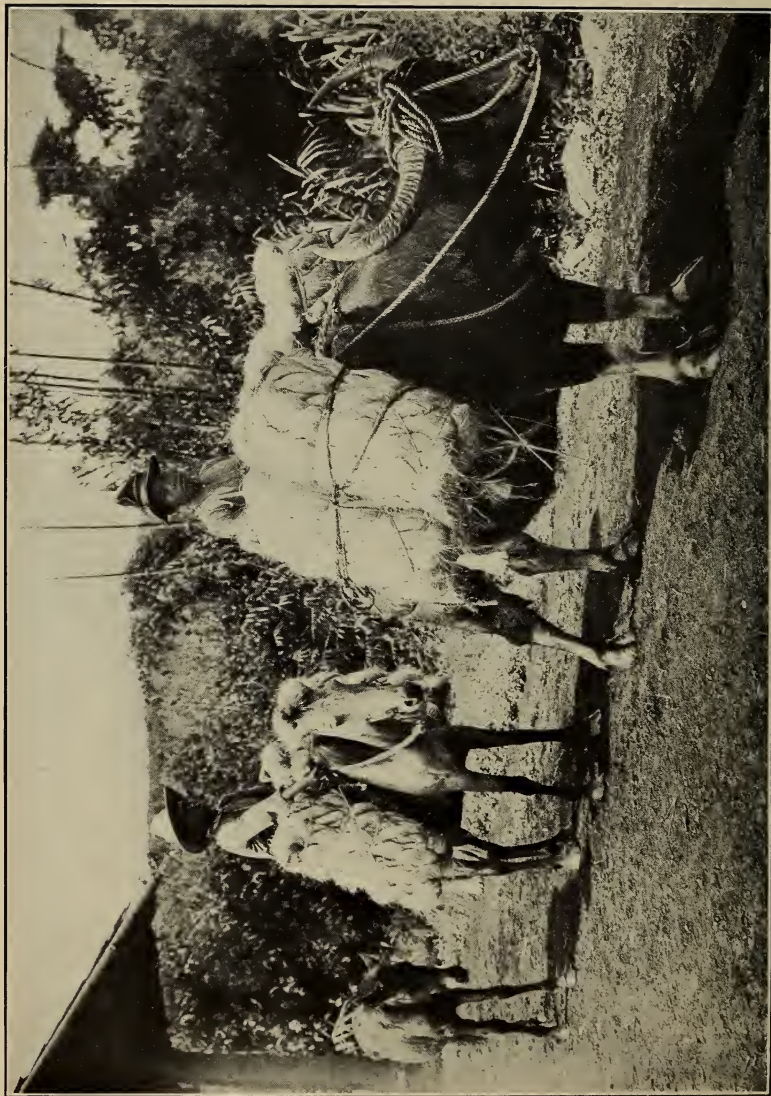
OPENING UP COMMUNICATION IN BUKIDNON.

This bridge, 300 feet long, with a central span of 75 feet, is being built by the Bukidnon foreman Leoncio.



OPENING UP COMMUNICATION IN BUKIDNON.

At the outset the people of this tribe did not know what a good trail was like. Most of them had never seen a bridge or a culvert. Leoncio, the Bukidnon man here shown, who is completely illiterate, is to-day surveying and building low-grade roads and trails and planning and constructing long bridges over rushing mountain rivers. He has learned all he knows from Lieutenant Governors Lewis and Fortich. His compensation, with which he is well satisfied, is ₱2 per day.



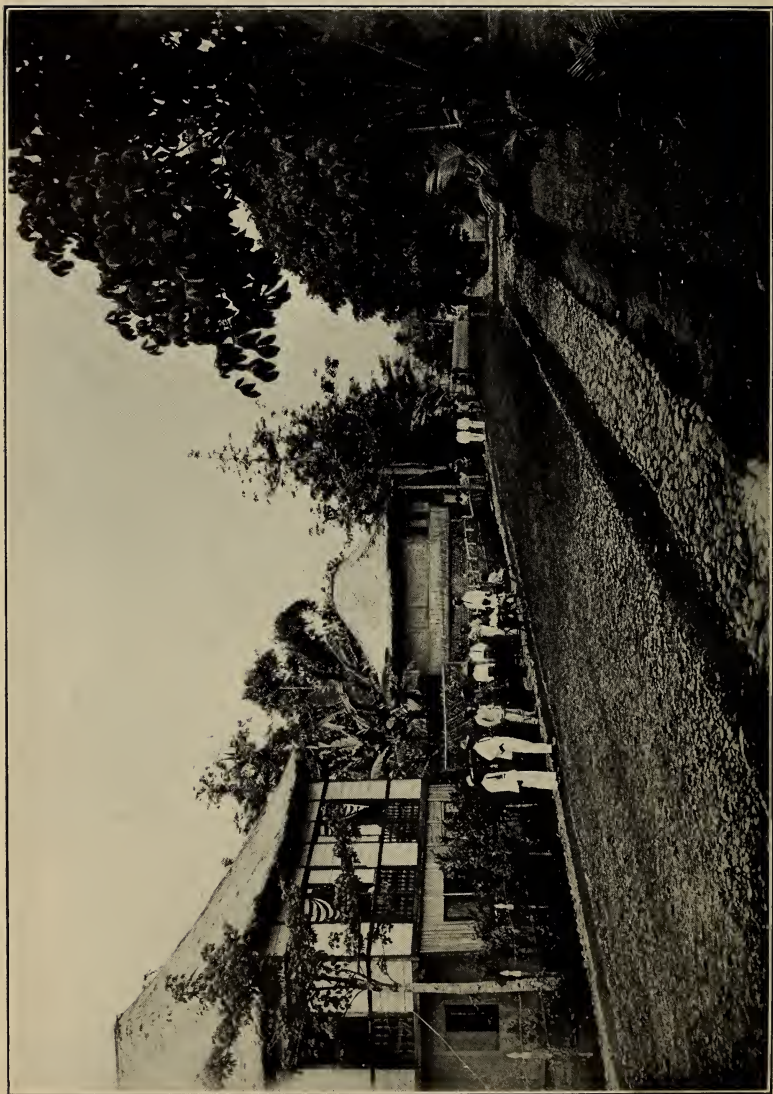
OPENING UP COMMUNICATION IN BUKIDNON.

The construction of good roads, low-grade trails, and bridges makes it possible for pack animals to carry very heavy loads.



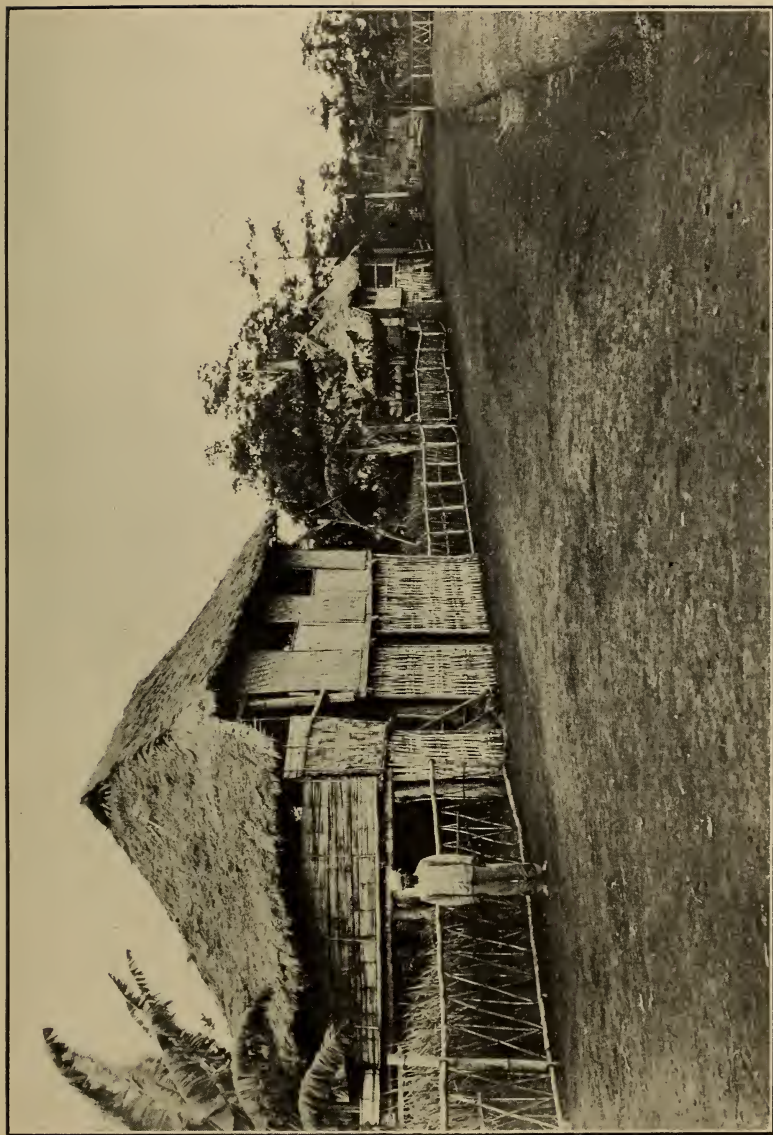
A TYPICAL STREET IN A NEW BUKIDNON TOWN.

The towns which are being built up by the members of this non-Christian tribe are models of cleanliness and sanitation.



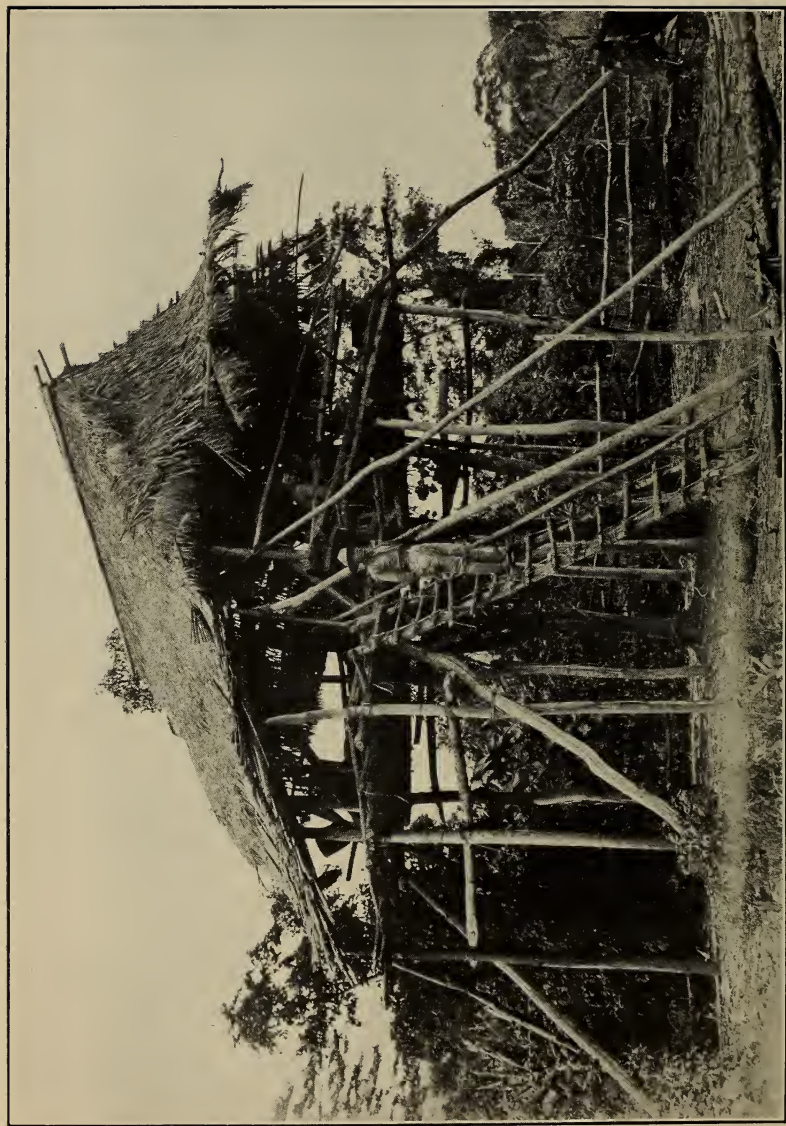
A TYPICAL STREET IN MALAYBALAY, THE CAPITAL OF BUKIDNON.

Note the stone sidewalks and the gravel surfacing on the streets.



A SCENE IN MARAMAG.

Maranag is one of the newest of the Bukidnon towns. A year ago the houses of many of its present inhabitants were located in treetops in the neighboring mountains. Now these same people are using a lawnmower to cut the grass on their town plaza, a bit of which may be seen at the right.

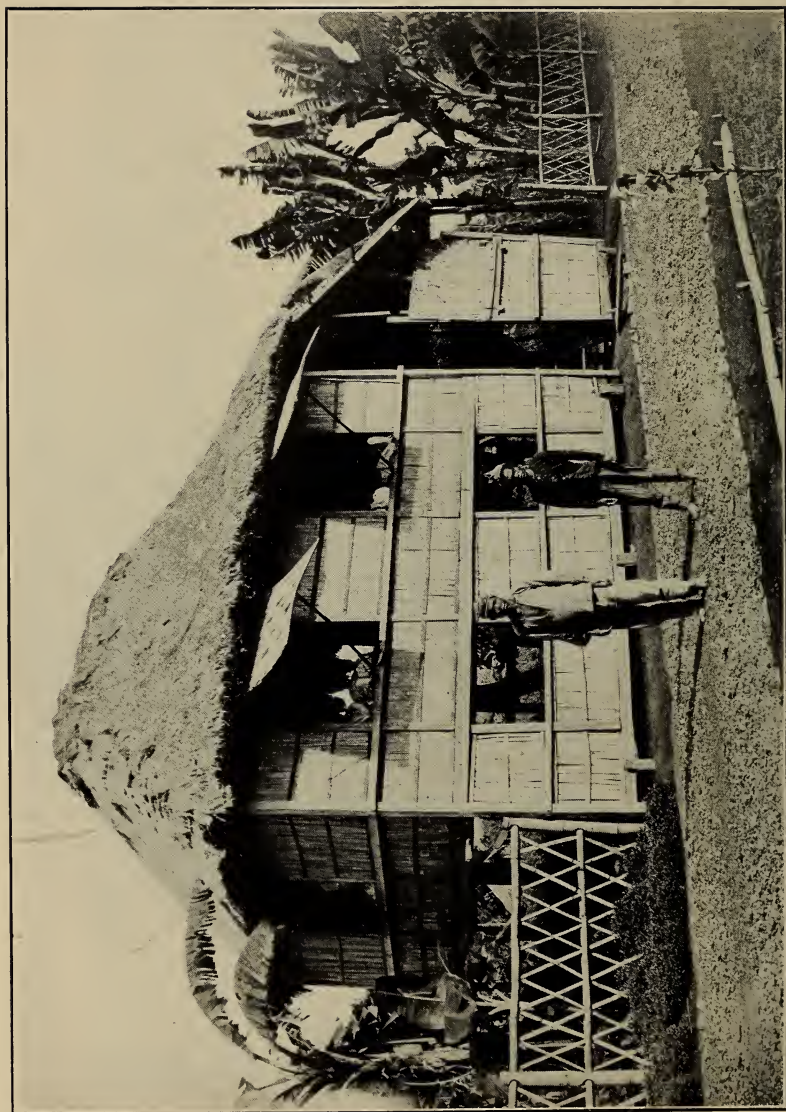


A BUKIDNON HOUSE OF THE TYPE NOW BEING ABANDONED.

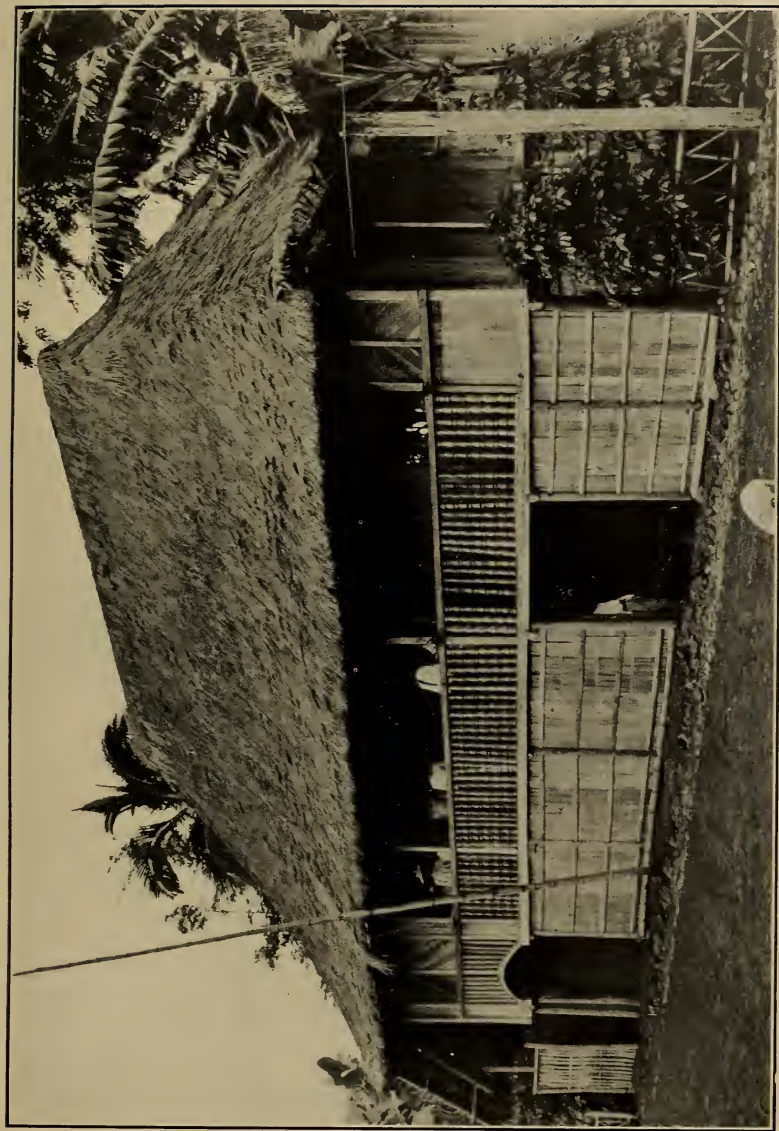


NEW ARRIVALS IN TOWN.

These people, who have just come in from the hills, where they have abandoned a tree house, have been decked in the garb of civilization by kindly Bukidnon neighbors who are already old residents. They have built themselves a hut for temporary occupancy while constructing the house of the improved type which is already underway. They have partially fenced in and planted ground which they will soon begin to cultivate. The evolution of families from barbarism to civilization may be seen in the outskirts of every Bukidnon town.



A BUKIDNON HOUSE OF THE NEW TYPE.

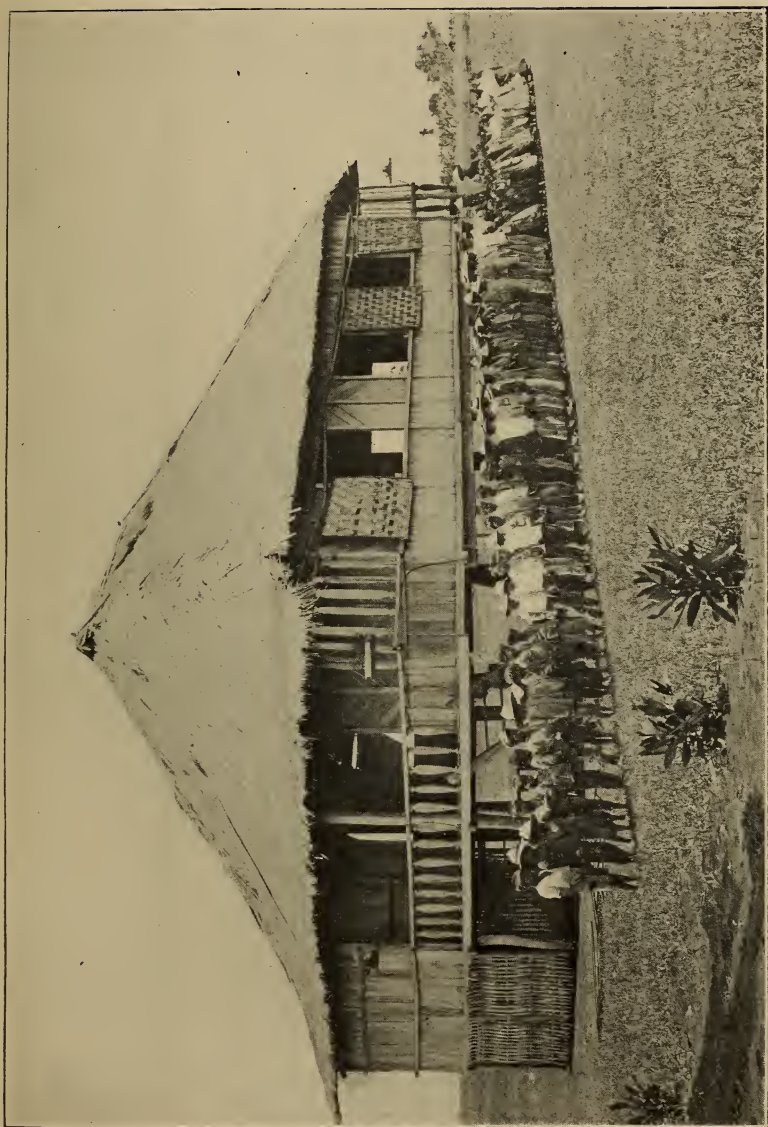


THE "PRESIDENCIA," OR MUNICIPAL BUILDING, OF A BUKIDNON TOWN.



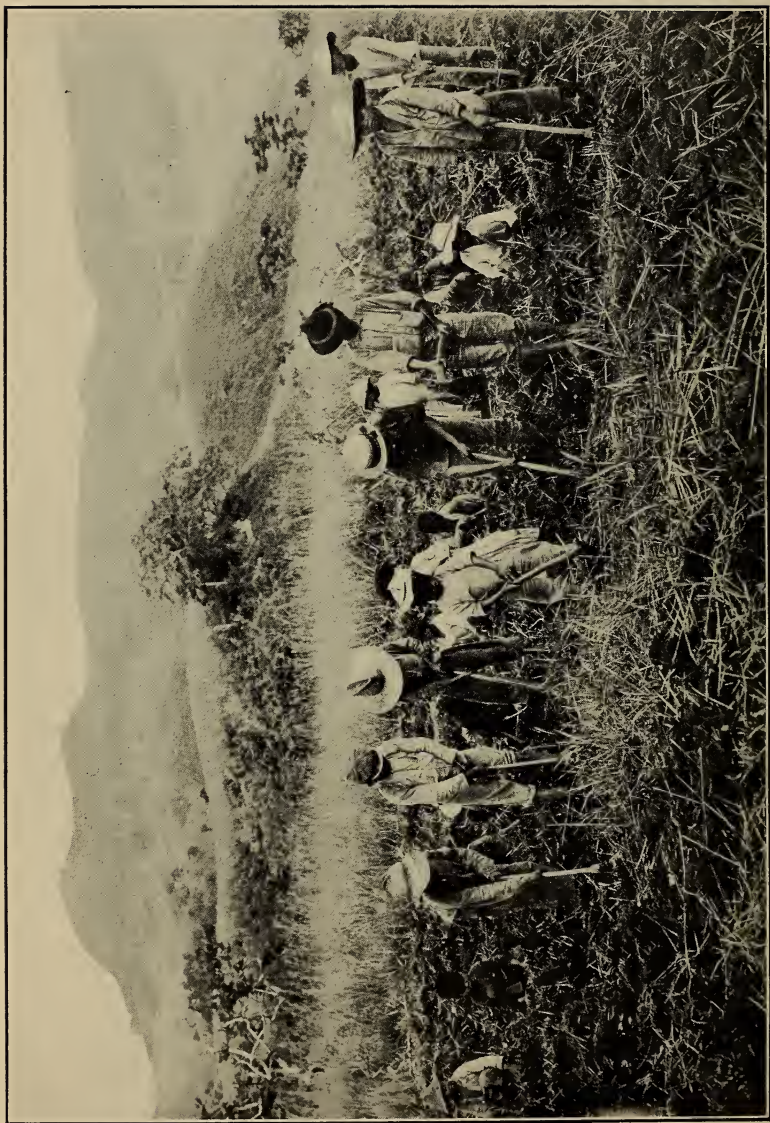
BUKIDNON VOLUNTEERS.

The Bukidnon people are aiding effectively in policing their own territory. These volunteers, armed with Springfield carbines of the old type, did very effective work in killing, capturing, and dispersing the members of a band of outlaws which murdered 14 people. Stripped of all superfluous clothing and carrying neither luggage nor rations, they moved very rapidly and seemed able to remain in the field indefinitely, living on the products of the forest.



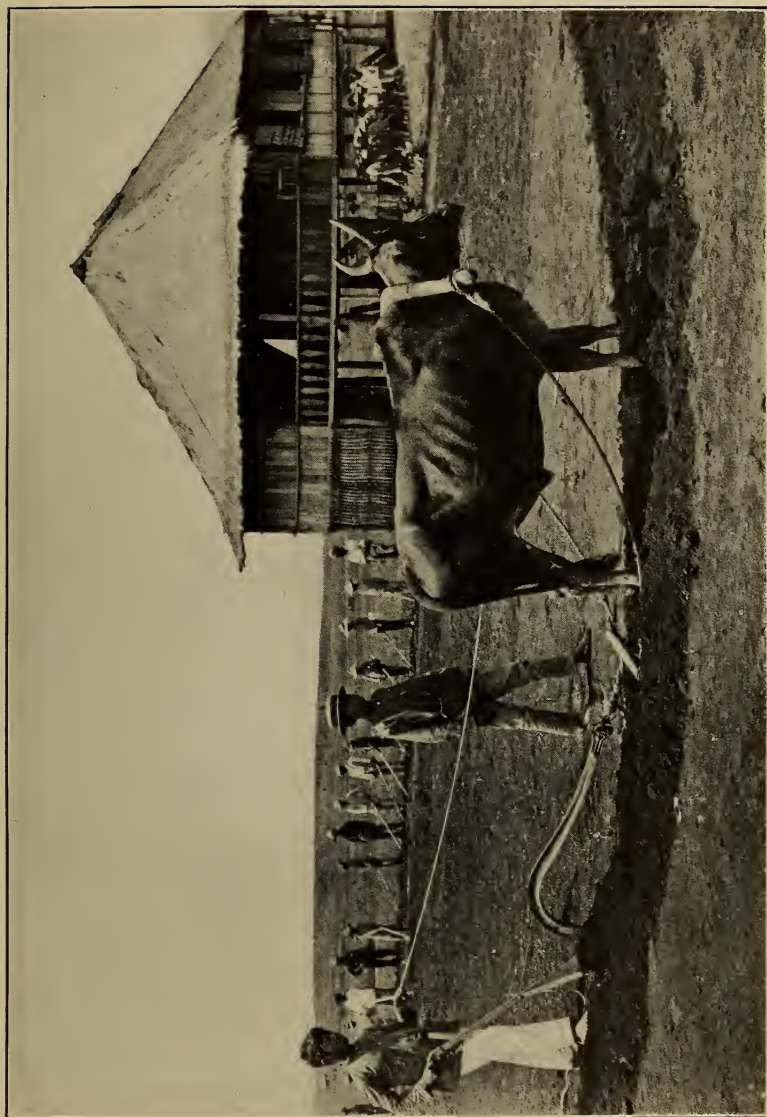
A TYPICAL SCHOOLHOUSE IN BUKIDNON.

The pupils in the foreground. The people of each Bukidnon village are only too glad to build a schoolhouse and a dwelling house for a teacher if assured that one will be assigned to them. The bureau of education is not only teaching the children English, arithmetic, etc., but is giving practical instruction to the boys in agriculture and to the girls in weaving, sewing, and other household arts.



PRACTICAL INSTRUCTION.

Bukidnon schoolboys learning to break sod with mattocks. Heretofore the Bukidnon people have thought it impossible to break the sod of the rich grassland.

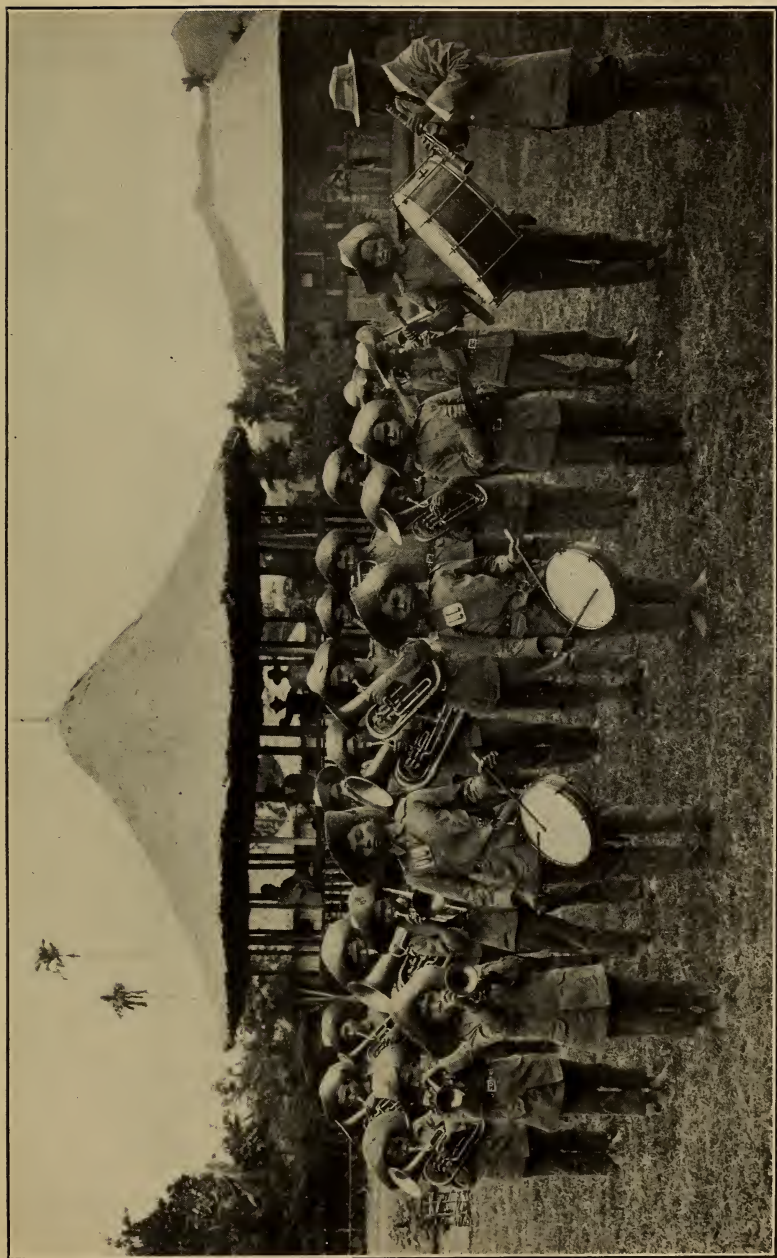


PRACTICAL INSTRUCTION.
Bukidnon schoolboys learning to plow.



PRACTICAL INSTRUCTION.

Bukidnon boys at the Mailag Industrial School cultivating arrowroot.



THE MALAYBALAY BAND.

This really good band is composed entirely of Bukidnon boys and is the pride of the people of this tribe, not a member of which knew how to play any band instrument at the time it was organized.



Presidente of Silae.



Presidente of Impasugong.

THE OLD AND THE NEW.

The presidente of Silae is an old fighting chief, as is shown by his wearing the headdress which may be donned only by highly successful murderers. He has recently come in from the mountains with his people and is building up a good town. In many towns, however, it has been found better to use young men for officials. The presidente of Impasugong, who has built up one of the best towns in the subprovince, was taken out of school and appointed to municipal office.

Now, the Bukidnons have been taught the value of their agricultural products and for the most part insist on receiving it when they sell. They are governing their own settlements and doing it well. Their houses are neat and well kept; their yards fenced, clean, and usually planted in useful crops. The streets and plazas of their villages are clean and well drained. Each important village has its well attended school. Grassy prairie lands have been converted into rich, cultivated fields. Excellent low-grade trails connect the more important villages, between which telephonic communication has also been established. A highway passable for automobiles is being pushed toward the subprovincial capital from the coast. On this route alone there are more than 100 bridges and culverts, and travel is not interrupted by the heaviest floods. The people are prosperous, contented, and more than friendly; yet much remains to be done.

Along the Cagayan River and elsewhere near the Misamis boundary they are still often mistreated by their Filipino neighbors. Unscrupulous municipal officials take advantage of their ignorance and timidity to compel them to pay in Misamis taxes which they do not owe. By one expedient or another they are deprived of their cultivated lands.

The following instance is typical of what only too often occurs. A long-haired man from the forest, who, by hard work had established a coffee and hemp plantation, made a trip to the coast to sell his products. Ignorant of the language there spoken, he fell into the hands of an unscrupulous trader, who told him that he needed a business partner in town who would sell the products of his plantation in the hills, thus saving him the expense and trouble of long journeys to the coast. Pleased with the idea, the wild man signed a document drawn up by his rascally new acquaintance. It purported to be a partnership agreement. It was in reality a bill of sale for his place.

The wild man, unassisted, is absolutely helpless in the courts. It will, I fear, be necessary to employ the services of a competent lawyer to protect these "heathen" from their "Christian" neighbors.

THE USE OF PHOTOGRAPHS TO SHOW THE PROGRESS OF THE BUKIDNON PEOPLE.

It is impossible by words alone to bring home to the public the extraordinary character of the progress which is being made by the people of this little-known tribe. In preparing this report I have attempted to illustrate this progress by the liberal use of photographs, in the hope of thus bringing the facts home more effectively than would otherwise be possible.

BUREAU OF HEALTH.

THE YEAR IN BRIEF.

At no time since American occupation has the Archipelago been so seriously threatened with invasion by dangerous communicable diseases. In consequence the efficiency of the bureau of health and of the quarantine service has been severely tested. Nevertheless, health and sanitary conditions have been decidedly better than during any previous year.

The Philippine General Hospital with its admirable facilities for bed patients and its very large free out-clinic has brought relief to thousands of sick and injured persons who have come to it from all over the Archipelago.

Although bubonic plague has again invaded the country after an absence of six years, it has been promptly checked, and the outlook is encouraging.

IMPORTANCE OF THE NEW WATER SUPPLY IN REDUCING THE MANILA DEATH RATE.

Sufficient time has now elapsed thoroughly to demonstrate the benefits which the city derives from the purer water supply drawn from the Montalban Reservoir. Results are shown in the following table. The figures in the first column are average figures for a period of five years antedating the installation of the new system. Those in the second column are for the fiscal year 1911, two years after the new supply became available.

	Average for—	
	5 years.	1911
Dysentery.....	339	132
Diarrhea and enteritis:		
Persons under 2 years of age.....	277	235
Persons over 2 years of age.....	343	144
Diarrhea and chronic enteritis.....	228	113
Convulsions of children.....	1,921	500
Meningitis, simple.....	450	71
Total.....	3,558	1,195

Typhoid fever is omitted for the reason that the diagnoses of this disease in Manila are notoriously unreliable. Cholera is not included for the reason that the cases which have so far occurred in Manila have not been connected with the public water supply. Convulsions of children here have been definitely ascertained to be, in the very large majority of cases, due to neglected intestinal troubles. Simple meningitis is included not because it is an intestinal disease, but because an extensive series of autopsies has shown that with the exception of a few cases of tubercular meningitis all cases diagnosed as meningitis were in reality cases of intestinal trouble.

The total number of deaths from these causes for 1911 was 1,195. The previous average annual total for 5 years was 3,558. The value of a human life in the United States, based on probable earning power, has been estimated at \$995 at 4 years and \$4,000 at 30 years. If on account of decreased earning capacity in the Orient we estimate the average value of a life at so low a figure as \$500, the saving during the year mentioned would be P2,366,000, certainly fair interest on the investment made in the new water supply.

Mariquina River water was again used from June 28, 1911, to July 27, 1911, and from March 9, 1912, to May 24, 1912, with a resulting prompt increase in the death rate, as appears from the following table:

	Normal.	1911		Normal.	1912
July.....	745	830	March.....	611	732
August.....	705	878	April.....	564	671
September.....	656	741	May.....	585	701
Total.....	2,106	2,449	Total.....	1,760	2,104

It would appear that there had been approximately 687 more deaths during the year than probably would have occurred had the Montalban water supply been continuously available. Owing to this circumstance, the death rate of Manila, which during the early part of the year was exceptionally low, has been materially increased.

LOW DEATH RATE AMONG GOVERNMENT EMPLOYEES.

The death rate among Government employees for the year was but 5.65 per thousand. For 2,824 Americans it was 8.46 and for 6,571 Filipinos it was 4.44, which is an extraordinarily satisfactory result.

BERIBERI AND POLISHED RICE.

At the Hongkong meeting of the Far Eastern Association of Tropical Medicine there was brought forth the strongest possible confirmation of the theory first announced at the Philippine meeting of this association in 1910 that beriberi is associated with the continuous consumption of polished rice as a staple article of diet. Further convincing evidence was forthcoming from Japan, China, French Indo-China, the Philippines, Siam, the Straits Settlements, and the Federated Malay States.

Interesting results have been obtained by Dr. Vedder, of the Army board for the study of tropical diseases, by the administration of an extract made from rice polishings in cases of infantile beriberi. He treated 15 cases with no deaths, the usual mortality in such cases being 50 per cent. The extract in question is now being experimented with upon a larger scale.

HOSPITALS AND SANITATION AMONG THE WILD TRIBES.

A modern 30-bed hospital of brick, with ample facilities for the treatment of outpatients and with quarters for part of the personnel, has been opened at Bontoc. It has been crowded from the outset. In fact, the patients were only too glad to lie on the floor before beds were received. This institution has been doing a wonderful work among people who prior to the American occupation were absolutely without medical or surgical assistance of any kind. Dispensaries with a few beds each, have been opened at Quiangan, Cervantes, Tagudin, Banaue, and Tuao. A temporary hospital has been opened at Butuan and a fine site for a good permanent building has been secured.

Sanitary conditions in towns like Bontoc and Cervantes are excellent, while in the Bukidnon towns they are extraordinarily good. Considerable progress has been made in vaccinating members of wild tribes.

Important results have been accomplished by Dr. Ampil in the Subprovince of Butuan, where he has brought about a steady decrease

in the death rate of a number of towns. The employment of one lone sanitary inspector has been a boon to the Subprovince of Bukidnon, where the people were previously absolutely without medical aid, and the kindly gratuitous services freely rendered by Dr. Madison H. Bowman, the medical officer of the scout company at Malaybalay, have added very heavily to the burden of debt which the good people of this subprovince owe to the government.

If the charitably inclined in the United States could form the faintest conception of the good which physicians and surgeons can accomplish among the non-Christian peoples of the Philippines and of the gratitude which the latter feel and show toward those who cure them of their bodily ills, they would certainly be glad to aid in this splendid work. Many pages in the daily journals of the men now engaged in it read like romance.

STERILIZATION OF WATER WITH ULTRA-VIOLET RAYS.

Amoebæ pass through all filters ever experimented with at Manila. Preliminary laboratory tests with ultra-violet rays have shown that they destroy bacteria and amoebæ as well. The expenditure of ₱4,500 for an experimental plant for determining the extent of these rays upon a considerable quantity of water has been authorized. It is hoped that a method of sterilizing water upon a large scale has at last been found.

PROGRESS IN THE PROVINCES.

Progress has been made in improving sanitary conditions in the provinces. This is due in part to the absence of epidemics of contagious disease and in part to the fact that the sanitary condition of Manila has now improved so far as to make it possible to utilize in the provinces a considerable number of employees previously required for work within the city limits. The persistent educational campaign carried on through the public schools, the rapid installation of artesian wells and other sanitary sources of purer water supply, the building of drainage systems and of new markets, and the increased interest in municipal cleanliness have combined to produce this greatly to be desired result.

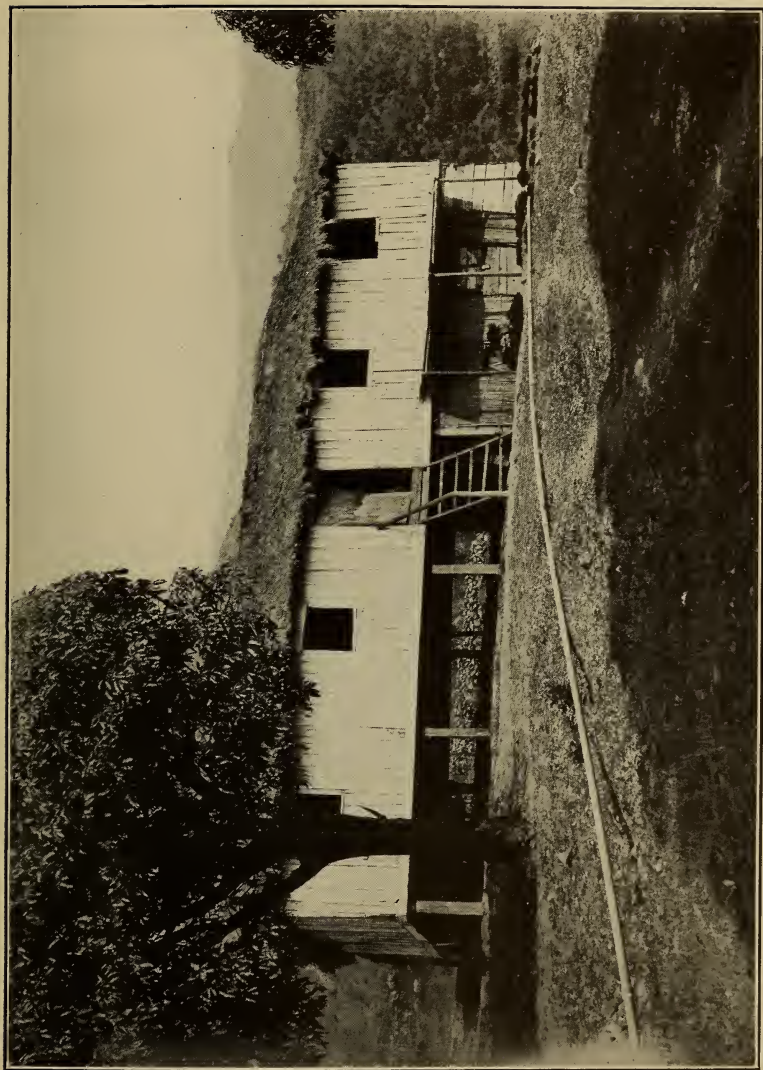
MANILA MILK SUPPLY.

The milk sold in Manila is bad. The best of it contains a minimum of 35,000 bacteria per cubic centimeter. Ordinary milk often has 60,000,000 bacteria or more per cubic centimeter, with numerous pathogenic organisms. The bureau of health is negotiating for the use of an adequate sterilizing plant and if this can be obtained will request the passage of an ordinance requiring the pasteurizing of all milk and its sale within a reasonable time after such treatment.

Preserved milk of excellent quality is obtainable here, and its use steadily and quite rapidly increases.

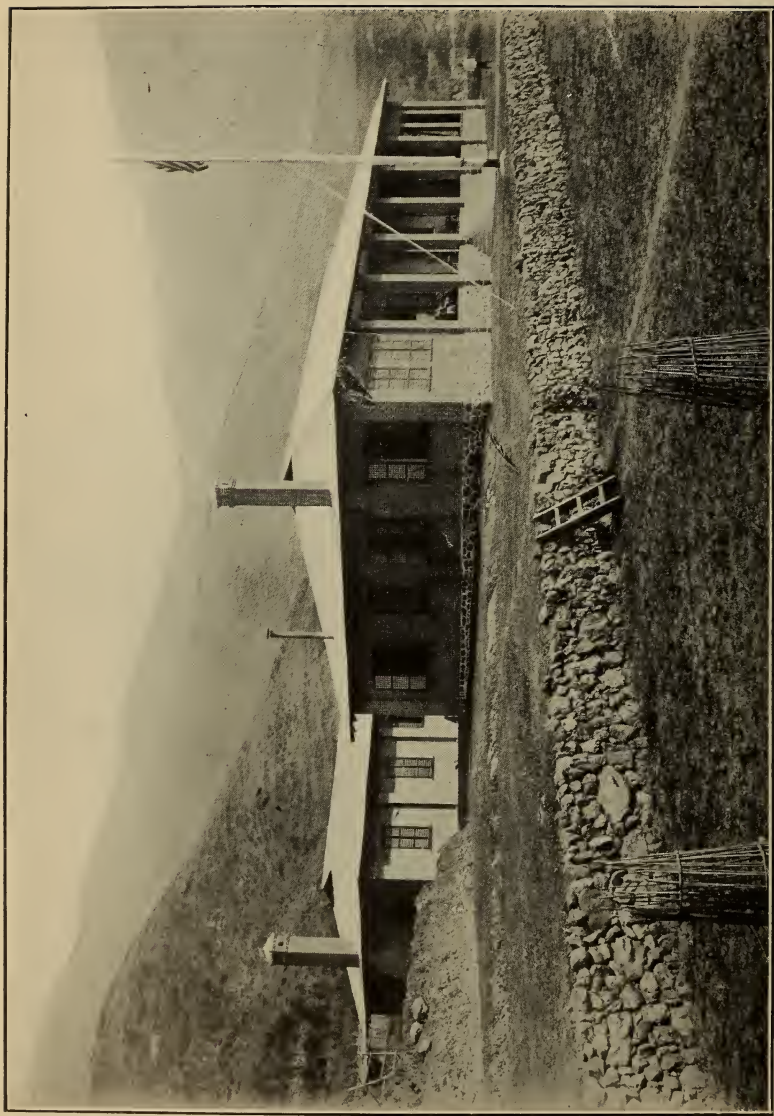
PRISON AND JAIL SANITATION.

A uniform system of prison and jail sanitation has been established through the medium of a circular of instruction, approved by the



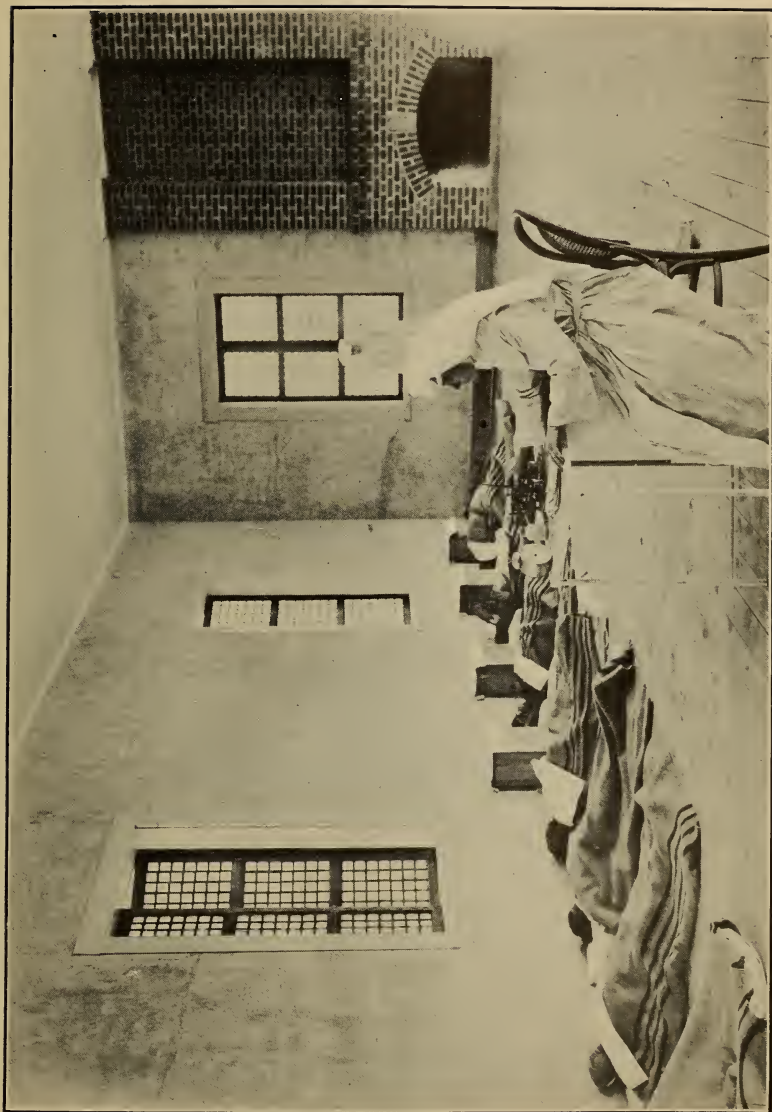
THE_OLD_BONTOC_HOSPITAL.

This rough structure was built with waste lumber from an old schoolhouse. Hundreds of sick and injured Igorots were cured in it.



THE NEW BONTOC HOSPITAL.

Built of brick burned by Igorots. This series of hospital buildings, modern in every respect, have been crowded from the day they were finished.



PART OF A WARD IN THE NEW BONTOC HOSPITAL.

Sick and injured Igorots were only too glad to lie on the floor until beds were available.



STAFF OF THE NEW BONTOC HOSPITAL.

The Igorots in this picture are servants.



FIRST AID TO THE INJURED.

Dr. Rembe is prepared to sew up a 10-inch cut in a man's forearm. A second patient, with his hand split open, waits at the left. Note the unconcerned expression on the faces of the injured men.

director of prisons and mailed to all district health officers. I have found the sanitary conditions of all provincial prisons and jails which I have been able to inspect excellent.

THE INSANE.

A law for the commitment and control of the insane was passed at the last session of the Legislature. Funds sufficient for the proper care of these unfortunates are lacking. Of the 3,543 known insane persons in the Philippines, only 360 are at present in institutions, while the number badly needing institutional care is at least 2,000. To give such care would involve an appropriation of at least ₱640,000 for buildings and an increased annual operating cost of ₱500,000.

NEED OF BETTER FOOD CONTAINERS FOR SUPPLIES SHIPPED TO THE TROPICS.

American manufacturers and exporters should interest themselves in providing better containers and in employing better packing methods for products intended for use in the Tropics. Shipments for the Philippines are too often prepared as they would be for brief railway journeys in the United States. This leads to heavy losses from heat, humidity, and insect pests. Paper or cardboard packages are highly unsuitable. Tin, glass, or other similar material should be used. Proper attention to these details would greatly increase the sale of cereal products, and would enable American exporters better to meet the competition of foreign countries, which have learned the necessity for great care in shipping to the Tropics.

ANTIMOSQUITO CAMPAIGN AT MANILA.

Manila can not be permanently rid of mosquitoes without the expenditure of several millions of dollars for engineering work. Under ordinary conditions the city is kept reasonably free from these pests by the work of a brigade costing approximately ₱2,000 per month.

Extraordinarily low water in the Pasig River, due to the unprecedented drought, caused sea water to extend far inland during the high tides of June. As a result, countless myriads of black, night-flying, salt-water mosquitoes were bred in places which had never previously produced them. There followed a widespread and severe epidemic of dengue fever. The mosquito plague disappeared only after the first heavy rains again filled breeding places with fresh water.

THE ENFORCEMENT OF THE PURE FOOD AND DRUGS ACT.

The pure food and drugs act has been energetically and strictly enforced. There have been some bitter protests from importers, accompanied by allegations that products allowed to be used in the United States were refused entry here. In one specific instance it was claimed that a shipment of codfish denied entry here was passed by United States chemists at San Francisco on its return. This statement ultimately proved to be false.

Every effort has been made to deal justly with all concerned. Reanalyses, known to be needless, have often been made merely to

promote good feeling. On the whole, the attitude of importers has perhaps been more friendly than could have been expected, and a great service has been rendered to the public by strictly enforcing this very important law.

SEWER CONNECTIONS.

The sanitary betterment of the city of Manila is still seriously handicapped by the continuance of an injunction granted by the court of first instance which prohibits the bureau of health from compelling private owners to connect with the sewer system, and there have been even fewer connections made than during the previous year. The case is now pending before the supreme court. Should the decision be favorable to the bureau of health, the work of completing the establishment of the 6,000 connections needed will be greatly expedited.

INSTALLATION OF ARTESIAN WELLS.

This most important sanitary measure has been actively pushed throughout the year by the bureau of public works. One hundred and sixty-four wells have been installed, all but 21 of which are successful. An unforeseen advantage was gained during the drought in that the artesian wells continued to flow abundantly where all usual sources of drinking water supply failed. Great inconvenience and much ill health were avoided by having available these sources of pure drinking water.

The total number of successful wells bored to June 30, 1912, was 680. Since their installation the mortality has decreased 50 per cent in some of the towns benefited by them.

INVESTIGATION OF DISEASES PREVALENT IN THE BATANES ISLANDS.

In response to a special and earnest request from the Batanes Islands, Delegate to the Philippine Assembly, I directed Dr. Willetts to proceed to that extremely isolated region and investigate the diseases prevalent there. Infection with some form of intestinal parasites was found universal in 400 persons examined. The fever on the island of Itbayat, so greatly dreaded, proved to be estivo-autumnal malaria. Among the 12,000 peaceful, friendly people of this remote region there is not a single physician. What an opportunity for charitable medical work!

IMPROVEMENT IN MEANS FOR DISPOSAL OF HUMAN FECES.

The proper disposal of human feces presents the most difficult sanitary problem awaiting solution in the Philippines. The propagation of diseases like cholera, bacillary dysentery, and typhoid fever by flies has been and is a very serious matter. Hookworm disease is spread as the result of the deposition of feces on light sandy soils. Water-closets of any sort are comparatively rare and those which exist are for the most part highly insanitary. The bureau of health has devised a simple receptacle for the present kerosene oil tin, covered by an automatically closing fly-proof lid. In all cases where its contents are properly disposed of this receptacle solves the problem.

IMPORTANT LEGISLATION.

Material benefit is anticipated as a result of the passage of Act No. 2156, entitled "An act authorizing the consolidation of municipalities into sanitary divisions and the reorganization of the municipal boards of health created by act numbered three hundred and eight; defining their powers and duties, and providing for each Province a special fund to be known as 'Health fund,' for this and other purposes." This act should result in materially improving health conditions in provincial municipalities. It ought to be known as the Fajardo Act on account of the valuable services rendered in connection with its drafting and passage by Hon. Jacobo Fajardo, Delegate from the second district of Pampanga.

By Act No. 2116 provision was made for a committee to investigate the causes of the excessive infant mortality in the Philippines and to recommend measures which should be adopted to decrease such mortality. The act appropriated ₱10,000 for these purposes.

Act No. 2147 appropriated ₱50,000 to aid the Antituberculosis Society, ₱12,000 for the protection of infants through the institute known as La Gota de Leche, and ₱8,000 to aid the Mary J. Johnston Hospital.

Act No. 2161 has the effect of increasing the number of nurses at the Philippine Nurses Training School. While the total number authorized during any given year remains unchanged the limitation on the number that might be appointed annually, which worked to keep the total constantly below that authorized by law, has been stricken out. This is a very important matter, as the services of more trained nurses are most urgently needed, both in Manila and in the provinces.

THE SOUTHERN ISLANDS HOSPITAL.

This institution, which is even more modern than the Philippine General Hospital, was ready for occupancy in January, but as the Legislature failed to pass an appropriation bill, and as the institution was not in existence at the time the last previous appropriation bill was passed and hence was not provided for, it has been impossible to open it. This is greatly to be regretted.

It has at present a capacity of 60 beds and at small additional cost could be made to accommodate 100. It is earnestly hoped that it may soon be opened. Meanwhile, the furnishing of such medical and surgical relief as is most urgently necessary has been provided for by securing the hospital of the railway company at Cebu.

FREE DISPENSARIES.

The bureau of health operates five dispensaries in Manila and five in the provinces. It aids the dispensaries of the University Hospital, the Mary J. Johnston Hospital, St. Paul's Hospital, and San Juan de Dios, as well as those of the Antituberculosis Society, and sends out hundreds of boxes of simple remedies and surgical dressings to its own officers, missionaries, school-teachers, and other persons.

Its free dispensary at the Philippine General Hospital ranks among the principal clinics of the world, having surgical, genito-urinary, gynecological, obstetrical, pediatric, neurological, dermatological, dental,

psychopathic, general medical, and eye, ear, nose, and throat departments. This dispensary is now treating patients at the rate of 80,000 per year.

BOARD OF MEDICAL EXAMINERS.

The work of the board of medical examiners has proceeded without interruption and registrations have been made as follows:

Doctors of medicine.....	24
Licentiates of medicine.....	41
Cirujanos ministrantes.....	9
Midwives.....	0
Total.....	74

BOARD OF PHARMACEUTICAL EXAMINERS.

For a number of years this board has had a most extraordinary history. Each succeeding period of examinations has been ushered in by unpleasant rumors of crookedness in connection with examinations, followed by more or less definite charges that questions to be asked had been given out in advance; that there had been personal discrimination between candidates by examiners; that ridiculously low or absurdly high marks had been given, etc. During the year 34 applicants were examined and only 1 passed. Instruction in pharmacy is at present undoubtedly deficient. Enmities exist between the faculties of different schools and the situation is most unpleasant.

The personnel of the board has been repeatedly changed without any corresponding change in results, and the plain truth is that the secretary of the interior and the director of health are at their wits' end to know what to do.

BACILLARY DYSENTERY.

Outbreaks of this disease have been reported in the Philippines from time to time. It has prevailed in some Igorot settlements from which laborers came to work on the railroad grading at Baguio. Some of these men brought the disease with them and it spread to government employees there during the early part of the season. A pest of flies which prevailed at this time facilitated its spread. Ten thousand pesos were made available for use by the bureau of science in combating insect pests, flies, and mosquitoes at Baguio, and an active and energetic campaign was waged, which resulted in the disappearance of the flies and of the bacillary dysentery as well.

BERIBERI.

Not a death from beriberi occurred in any government or public institution in which unpolished rice was continuously used. There were formerly at least 600 deaths annually from beriberi in such institutions. The disease practically disappeared while unpolished rice was used exclusively and promptly reappeared when unusual conditions rendered necessary the temporary resumption of the use of polished rice. At the Culion leper colony this was followed by a

prompt increase in the death rate, amounting to more than 300 per cent within three months. Mongos were liberally supplied and undermilled rice was obtained as soon as possible. The death rate then quickly dropped to normal.

CHOLERA.

A small outbreak of cholera in La Union abruptly yielded to the usual sanitary measures, with a total of 48 cases. One case of cholera occurred at Manila, with no spread of the disease.

DIPHTHERIA IN MANILA.

Since 1904 there has been a fairly steady increase in the number of cases of diphtheria in Manila. During 1912 they numbered 49. Special instructions have been given for combating this disease, which fortunately is as yet little known here.

LEPROSY.

Eight hundred and fifty-five lepers were taken to the Culion leper colony during the year. Five hundred and thirty-one died there, the net increase in the number of the colony being 324 and the total being 2,615 at the end of the year. The total number collected since the work of isolation began is 6,695, of whom more than 3,000 have come from Cebu. This island, with one-tenth of the population of the Philippines, furnished about half of the lepers.

A study of the ages of lepers at the colony shows that approximately one-third of them are between 17 and 25 years of age, and the fact that the disease is not necessarily speedily fatal is quite conclusively proved by the presence of a leper 101 years old.

Chaulmoogra oil, when taken continually over long periods of time, continues to prove most useful in treating this disease, and results in some apparent cures. Unfortunately, most persons experience great difficulty in taking it.

MALARIAL FEVER.

Certain regions of the Philippines, and especially of Mindoro, Palawan, and Guimaras, continue to be centers of pernicious malarial infection. The possibility of successfully combating it has been conclusively demonstrated at the Iwahig penal colony.

The property of the Mindoro Co., which originally formed a part of the San José friar estate in Mindoro, has been an especially serious source of infection. While the representatives of the owners of the San José estate proper were willing to act on every suggestion of the health authorities, the manager of the Mindoro Co. was shamefully neglectful in failing to take the most rudimentary precautions.

After milder means had been exhausted, I left a competent complaining witness on the ground, with instructions to prosecute him persistently until he was brought to reason. Subsequent improvement in sanitary conditions has been rapid, and this region should soon become as healthful as the Iwahig penal colony.

MEASLES.

An outbreak of measles which began in Manila in 1911 was probably introduced by passengers on Army transports from the United States. The type of disease is severer than that previously prevalent here, which practically never caused death. Of the 534 persons known to have been attacked during the year 23 have died.

PLAGUE.

The first case of plague in a human being which has occurred for six years was detected at Manila on June 17, 1912. The total number of cases to September 15, 1912, was 7. The only rats found infected have been in the immediate region where these cases have occurred.

The fact that there has been no infection among the rats along the piers and in other parts of the city would seem to negative the theory that infected rats have landed on the piers from ships, and it is believed that the infection must have been introduced by a rat or rats in cargo, such as potatoes, which is brought in considerable quantity to this particular region. As it is practically impossible to open all individual freight packages of this sort the possibility of the introduction of plague in this way must be faced.

SMALLPOX AND VARIOLOID.

There have been no deaths from smallpox in Manila since 1905. Thousands of deaths occurred annually before the bureau of health inaugurated its vaccination campaign. Three hundred and ninety-three males and 207 females contracted varioloid during the year, but there was not a single death. The limited number of deaths which have occurred in the provinces have almost invariably been among children born since the last systematic vaccination carried out under the directions of the bureau of health, and have resulted from the fact that the local officers who should attend, during January and July of each year, to the vaccination of newborn children and of any unvaccinated persons coming into their territory fail to perform their duty. Unless and until the local authorities will exert themselves sufficiently to take the simple measures necessary to prevent the recrudescence of diseases like smallpox, the withdrawal of American control from the Philippines would spell certain disaster.

TUBERCULOSIS.

The systematic campaign against tuberculosis in the Philippines is largely conducted by the Philippine Antituberculosis Society, to which organization direct appropriations are made by the Legislature. The bureau of health furnishes such assistance as it can give. It has set aside two wards at the San Lazaro Hospital for advanced cases, and conducts a tuberculosis camp in connection with the hospital at Baguio, where there have been obtained many encouraging results, demonstrating the excellence of the Baguio climate for tuberculosis patients.

WORK OF THE INSPECTION DIVISION.

The heavy burden of work resting on the inspection division will be realized in a measure when it is remembered that this division has charge of the following: House to house inspection to determine general sanitary conditions and to detect cases of communicable disease; inspection of dairies, laundries, bakeries, and tobacco factories; disinfection; mosquito extermination; rat extermination; physical examinations; collection of samples for routine examination; food and drugs inspection; presidents of municipal boards of health; inspection of sanitation of railroad construction camps; school inspection, together with such special inspections and investigations as may be directed. An enormous amount of work has been performed during the year.

CULION LEPER COLONY DIVISION.

More progress in the satisfactory development of the Culion leper colony has been made during the year than during any similar previous period. Many of the buildings have been repaired; 10 new reinforced concrete structures and 4 previously begun have been completed, and 3 are now under construction. Not only has the sanitary condition of the colony been greatly improved but much has been done toward its beautification by the planting of some 4,000 ornamental trees, shrubs, and plants. The water-supply system has been materially improved. Storage and transportation facilities have been increased. The furnishing of good fresh bread to colonists and employees has been the cause of universal satisfaction.

Twelve colonists who had been treated with chaulmoogra oil were sent to Manila apparently cured of leprosy, but it was subsequently necessary to return two of them who suffered relapse.

There have been theatrical performances, track athletics, and baseball games at the colony. The spirit among the colonists improves and it is believed that the day will soon come when lepers will voluntarily present themselves there for treatment.

PHILIPPINE GENERAL HOSPITAL DIVISION.

Shortly after this great institution opened its doors and long before it was operating at anything like its full capacity, I was called to the United States. Through an extraordinary combination of circumstances the director of health and the chief of clinics at the hospital were necessarily absent during the same period. At this time the institution also lacked a technically trained superintendent. Upon my return from the United States I was kept in the provinces for some time by official business. A brief inspection, shortly after I resumed duty at Manila, revealed the existence of conditions such as to demand, in my opinion, a thorough investigation of the institution in all of its branches. Owing to the absence of the director of health, I was forced personally to undertake this work. I called upon the auditor's office for assistance in connection with technical matter with which I did not consider myself competent to deal unaided. The assistance requested was promptly and effectively rendered.

As was to be anticipated under the circumstances, serious administrative defects were found. The methods of storing and accounting for property were unsatisfactory and losses had resulted. The ambulance service was bad. The office force was far from adequate. Medical records were not properly protected nor were they being kept up to date. The buildings were not so clean as was desirable, and the grounds in their vicinity were in a deplorable state of disorder and neglect. Servants were inefficient and slovenly. These conditions were the natural result of a lack of effective supervision over the building up of so large an institution.

Reforms were at once instituted. The grounds are now most attractive and both grounds and buildings are kept in admirable condition. Servants have been organized and neatly uniformed, and are efficient. Storage facilities for property have been improved and a simple and effective accounting system has been established. The ambulance service now works with the smoothness and certainty of a well-organized fire service. The medical record system has also been effectively reformed.

With regret I found that several members of the hospital staff had been guilty of improper conduct. Of these, I severely reprimanded three, removed one, and insisted upon the resignation of one. These measures were, in my opinion, indispensable to the establishment and maintenance of a proper service and of discipline. They produced the desired result. The institution is at present in a high state of efficiency.

The hospital staff is able and well organized. The institution is well known throughout the length and breadth of the islands, and Filipinos are coming to it from all over the Archipelago. With unexpected promptness, and to an unanticipated extent, it is fulfilling the ends for which it was created, which are, first, the cure of the sick and the injured and, second, the furnishing of facilities for practical instruction in medicine and surgery.

The latter end has been accomplished by placing at the disposal of the faculty of the college of medicine and surgery of the University of the Philippines 200 free beds. The members of this faculty control the admissions to these beds, provide all needed medical and surgical care for their occupants, and as all charity patients are admitted subject to the condition that their cases may be studied, there result unrivaled facilities for practical instruction in medicine and surgery.

Under existing provisions of law, the secretary of the interior is authorized to require the services at this hospital of any medical officer of the government, subject to the approval of the proper secretary of department or of the board of regents of the University of the Philippines, as the case may be. He is thus enabled, in selecting a staff, to draw upon the whole body of medical men employed by the bureau of health, the bureau of science, and the university. As no request of his for a medical officer has ever been denied, it follows that the present staff is, in his opinion, the ablest which could be drawn from the material available. A proper regard for economy and efficiency naturally resulted in the selection of a large proportion of its members from the faculty of the college of medicine and surgery.

The growth of the Free General Hospital Dispensary has been phenomenal. During the fiscal year 1911 it treated 24,335 patients and filled 39,178 prescriptions. During the fiscal year 1912 it treated 64,673 patients and filled 83,517 prescriptions. It is now treating patients at the rate of 80,000 per year.

The hospital proper is constantly taxed to its full capacity, and it has been necessary to turn away a large number of would-be patients on account of lack of accommodations.

The work of the eye, ear, nose, and throat department has been especially noteworthy. Dr. Rembe, aided by his Filipino assistant, Dr. Ubaldo, performed 925 major operations, 1,440 minor operations, made more than 11,000 dressings, and 1,228 refractions of the eyes.

TRAINING OF FILIPINO NURSES.

This most useful work continues to result very successfully. On April 9, 1912, 35 young Filipino women were given the degree of graduate nurse. All but one of the 1912 graduates have continued in the employment of the government. Both during their training and subsequently they have given willing, cheerful, and efficient service and have proved themselves to be good nurses.

It has proved feasible and desirable to extend the nurses' training course to three and one-half years.

As yet the demand for well-trained Filipino nurses in government institutions far exceeds the supply. When this ceases to be the case, there will still be an almost limitless field before them in the provincial municipalities. As district nurses they can render invaluable service in cooperation with local health officers. A beginning in this latter work has already been made in the Province of Cebu.

ADDITIONAL DORMITORY FACILITIES NEEDED.

Although a fine building on the hospital grounds has been fitted up as a home for pupil and graduate Filipino nurses, additional dormitory facilities are urgently needed, especially for the graduate nurses. In my opinion, a building similar to the present nurses' home should be erected in the immediate future, on the ground adjacent to the present nurses' home and facing Taft Avenue.

NEED OF A SEWER SYSTEM FOR BAGUIO.

It is a lamentable fact that sufficient attention has not been given to sanitation in connection with the development of the summer capital of the Philippines. The lack of any general sewer system, the inadequacy of the septic vaults, neglect of the advice of medical men, and failure to observe sanitary ordinances, resulting in the accumulation of garbage and horse manure, have now been definitely demonstrated to be responsible for the outbreaks of bowel trouble which have occurred there from time to time. The recent effective measures taken to clean the place up have resulted in reasonably good conditions, but thoroughly satisfactory results can be obtained only by the establishment of a sewer system. This should be provided for as soon as possible. It is most unfortunate that even in a relatively small number of cases the wonderful effect of the Benguet climate should be lost as a result of infection with preventable diseases.

DIVISION OF SANITARY ENGINEERING.

On August 1, 1911, the sanitary engineer of the bureau of health assumed the duties of sanitary engineer of the city of Manila, an arrangement which materially promotes efficiency and economy and does away with the previously existing dual authority.

The annual report of the director of health gives a very complete summary of health conditions throughout the islands, with comprehensive statistics. Many facts of interest are necessarily excluded from this report, and for them reference is made to the above-mentioned report of the director.

BUREAU OF QUARANTINE SERVICE.

Under the existing arrangement the quarantine service of the Philippine Islands is conducted by the United States Public Health Service like any other branch of the work of that service, except that the insular government appropriates funds sufficient to meet the expense involved.

The proper performance of this work is a matter of vital importance to the Philippine Islands, distant as they are but two to five days from several of the great Asiatic centers of distribution of dangerous communicable diseases. From the day of its establishment it has been carried on with a very high degree of efficiency and has undoubtedly saved the insular government heavy expenditures by preventing the introduction of epidemic diseases.

The methods of the service are progressive. Investigations as to the danger of introduction of Asiatic cholera by bacilli carriers who show no outward manifestations of the disease have been made through the medium of comprehensive stool examination. The five hundred and fifty-seventh person examined furnished a liberal supply of active cholera vibrios although apparently in perfect health. As the islands are now believed to be entirely free from cholera, the prevention of its introduction becomes a matter of very great importance, and the inadequacy of methods heretofore employed to achieve this result has thus been conclusively demonstrated. It is proposed hereafter to make stool examinations a part of the regular routine of quarantine inspection for all steerage passengers proceeding from countries where cholera exists.

PLAGUE.

Perhaps the greatest service yet rendered these islands by the quarantine officials was the seasonable detection of undoubted cases of pneumonic plague on vessels arriving from Hongkong and Shanghai. As a result quarantine detention of seven days for all steerage passengers and all others who had lived in close quarters with Asiatics was imposed against Hongkong on April 9 and against Amoy on April 15. The speedy detection of another case, which developed in quarantine, followed. It is not pleasant to think what the consequences of the introduction into the Philippines of this dreadful disease might be. The method in which it develops has been found to be such that only the highest degree of efficiency on the part of quarantine officials can prevent its introduction.

COMPLAINTS OF DELAY IN INSPECTION.

The promptness with which vessels are inspected at Manila during daylight hours has long caused favorable comment, but during the past year there has been considerable adverse criticism when vessels arriving an hour or two after dark were compelled to await inspection until the following morning, the public apparently failing to appreciate the fact that good daylight is essential to a really effective inspection. The danger of the introduction of plague has fully justified the stringency which has been exercised in this matter.

RAT QUARANTINE.

In view of the importance of rats as bearers of plague, stringent rules relative to fumigation have been insisted upon; 6,524 rats and mice are known to have been killed. Many vessels leave before the holds are free from gas, so that no reliable count can be made, and the total number of rodents thus destroyed is presumably one-third greater than that above given.

An inexpensive standard rat guard has been adopted and its use on all lines connecting with piers or lighters is enforced. Rat doors have been placed on government piers to prevent the passage of rodents from the piers to the shore, and a strict daily dock inspection has been made. The rat doors are kept closed at all times except when opened to permit the passage of trucks and other vehicles. A small door with a high coaming permits persons to pass.

The riprap work near the piers affords lodgment to a considerable number of shore rats, upon which persistent war is being waged with rat terriers, traps, and poison. In short, no possible precaution to prevent the introduction of plague by rats has been neglected. Nevertheless, after an absence of six years, bubonic plague has reappeared, probably introduced by rats brought ashore inside of packages of potatoes or other vegetables.

MEAT INSPECTION.

Quarantine officers have, at the request of the director of health, taken over the work of inspecting meat and meat-product certificates under the pure food and drugs act. This work has assumed very large proportions.

The service has rendered important special assistance to the bureau of navigation, the civil service board, the bureau of customs, the bureau of agriculture, the weather bureau, the United States Army, the bureau of posts, and other branches of the insular government and to charitable institutions.

The following table gives some idea of the large amount and varied character of the work performed by the bureau.

Summary of quarantine transactions, both incoming and outgoing, Philippine Islands, fiscal year ending June 30, 1912.

	Manila.	Iloilo.	Cebu.	Cavite.	Zambo- anga.	Jolo.	Total.
Vessels inspected.....	943	103	55	7	35	16	1,159
Vessels detained in quarantine.....	63		1				64
Vessels disinfected.....	42		6				48
Vessels fumigated to kill vermin.....	391	120	59				570
Number rats killed.....	3,411	692	1,056				5,159
Bills of health issued.....	844	195	175	16	35	16	1,281
Pieces of baggage disinfected.....	36,950		523				37,473
Pieces of baggage inspected and passed.....	21,531		17				21,548
Pieces of miscellaneous cargo certified.....	1,321,434	14,046	124,024				1,590,504
Cases quarantinable diseases detected on vessels.....	9		6				15
Persons detained in quarantine.....	2,627		47				2,674
Crews inspected.....	78,136	5,676	2,898	1,499	2,329	1,097	91,635
Passengers inspected.....	87,889	2,837	350	7	1,200	624	92,907
Persons vaccinated.....	8,178	640	1,050				9,868
Persons bathed and effects disinfected.....	10,970		262				11,232

There were no transactions at the ports of Balabac or Olongapo.

Many additional and important details of the work performed may be had by reference to the annual report of the chief quarantine officer for the Philippine Islands.

BUREAU OF FORESTRY.

The work of the bureau of forestry has progressed without serious interruption, but this would not have been the case had not the governor general at my request made available an additional sum of ₱13,000, which rendered it possible to continue until the close of the year important field work which would otherwise necessarily have been suspended owing to a lack of funds with which to pay necessary expenses incident to keeping field parties in the forest.

INADEQUACY OF THE PRESENT APPROPRIATION.

I have repeatedly called attention to the inadequacy of the existing appropriation for this important bureau. At the time that the bureaus of the insular government were reorganized the sum of ₱100,000 per annum was determined upon as a suitable appropriation for forest work. Small increases have been made from time to time, both because of the impracticability of making the examinations required in connection with the sale and leasing of public lands without additional funds, and as a result of our having entered upon the wise policy of training Filipinos for the forest service—a policy which involves a temporary increase in expenditures, but should ultimately result in a material decrease in the amount necessarily expended annually for salaries and wages.

DEVELOPMENT OF THE LUMBER INDUSTRY.

Meanwhile the work which the forestry bureau has done in determining the properties of many valuable woods not previously known to commerce, and in exploring the forests and obtaining detailed and reliable information relative to the location and abundance of tree species producing valuable woods, has brought about important development of the lumber industry. The crude Philippine ax formerly used for felling trees has been replaced by the American ax, and this is now in turn being replaced by the saw. There results a decrease in the amount of timber wasted and in the cost of felling trees.

The former slow and tedious method of hauling logs to the mill by carabao, necessitating as it did cutting the logs into very short lengths, and in many instances the cutting of comparatively small trees while larger and better ones were left to fall and rot on the ground, is giving way to the use of steam skidders and logging railways.

Experience has shown what saws and what feeds are necessary for the successful milling of Philippine hard woods, and modern sawmills are rapidly taking the place of the whipsaw, while hewn timber is becoming almost unknown.

Numerous 20-year concessions covering large forest tracts have been granted. As a result of the greatly increased amount of cutting there is need of a corresponding increase in supervision if violations of the forest act and rules, upon a large scale, are to be avoided and if the charges due upon forest products are to be collected.

THE BUREAU OF FORESTRY SHOULD HAVE A FIXED PERCENTAGE OF THE RECEIPTS FROM FOREST PRODUCTS.

I have long contended that the appropriation for the bureau of forestry was inadequate; that each substantial increase in the working force of the bureau was followed by a substantial increase in the cash receipts of the government, to say nothing of the increased protection afforded the public forests; and that since the legitimate work of the bureau of forestry necessarily increases with the development of the lumber business, and as the work of this bureau makes possible and directly stimulates such development, there should be established a definite relationship between the receipts of the government from the charges collected on forest products and the appropriation for the bureau. I wish now further to emphasize this point by practical illustrations.

Two years ago I informed the Commission that there was not a single forester in the great island of Mindanao, where several important concessions had been granted and where the bureau was having constant and serious trouble with violators of the forest act. No specific appropriation was then made for work in Mindanao. I was advised that it was in my power to direct that work be done in Mindanao if I saw fit, and to provide for it by discontinuing work elsewhere. I adopted this course, with the result that upon the showing of fact made at the end of the first year the continuance of the service thus established was provided for by appropriation as an additional item.

Having just completed an inspection of the more important Mindanao sawmills, I can say that the results to date have exceeded my own expectations. Mr. Lyon has brought the output of his mill at Isabela, Basilan, up to 20,000 board feet per day, and intends to double its capacity. He is now working under an annual license, but has requested information as to the general conditions under which he can secure a 20-year concession covering Basilan. A party is now in the field making the studies on which to base a definite reply to this inquiry.

Messrs. Redding & Williams, whose mill now cuts from 15,000 to 20,000 feet per day, are also planning for greatly increased capacity and for improving their loading facilities by extending their pier.

Messrs. Pujalte & Co. have just replaced their old mill at Taba Bay with a new and modern one which will cut from 25,000 to 30,000 feet per day. They have also purchased a controlling interest in the concession of Mr. José Pichel, and will soon replace the present mill with a modern two-story structure containing the best of machinery, at the same time increasing the output to 30,000 feet per day.

As the result of investigations which it has now been practicable to make, it was found that the territory granted to Mr. Pichel and to the Dumanquilas Sawmill Co. was larger than their lumbering and milling facilities warranted. It was therefore reduced, and the forest area thus made available for others was offered as a 20-year concession, with the result that there were four bidders. The acceptance of the best bid means an early increase of ₱75,000 in the annual revenue of the government, an amount equivalent to more than half the total present annual cost of operating the bureau of forestry.

In numerous other instances there has resulted increased efficiency in the forest and in the mill with a resulting increased output, and a number of other concerns are planning to add to their plants in the immediate future.

In many cases lumbermen were selecting only especially fine trees of the best species close to water, leaving heavy stands of merchantable timber which could have been logged at a profit, cutting timber to fill specific orders when received, and constantly moving logging equipment from place to place, often returning it to regions previously partially worked in order to fill some new special order, and when their profits were reduced by these unbusinesslike methods complaining that the lumber business in the Philippines was not sufficiently profitable. The policy of the bureau has been to reduce territory held by licensees to areas commensurate with their output; to increase minimum required outputs; to secure the installation of better milling facilities and modern logging equipment when practicable; to confine operations of licensees to certain definite cutting areas within their concessions until all merchantable timber above certain diameter limits is removed, always leaving seed trees for adequate reproduction, and to require competent supervision of forest operations. The adoption of this policy has not only adequately protected the forest, but has greatly stimulated the lumber industry by making it more profitable. Five new mills have been installed in the provinces.

At the present time the Philippine Islands with their enormous potential forest wealth do not produce sufficient lumber adequately to meet their own needs, while the export trade to the United States and other countries, which should be very large, is almost negligible.

If, as I believe, it has been shown that it is possible to build up a great lumber industry which will materially increase the prosperity of the inhabitants of these islands, will result in actual improvement of the forests through the cutting out of old trees and the giving of better opportunity for the development of young ones, and will actually increase the receipts of the government in an amount materially greater than the increased expense involved, then there should certainly be no hesitation in making the necessary appropriations.

The principle for which I contended was recognized in the appropriation bill passed by the Philippine Commission for the fiscal year ending June 15, 1913, the plan adopted being to give to the Bureau of Forestry for use in the territory within the jurisdiction of the Philippine Legislature 50 per cent of the revenue derived from forest products and for use in the territory under the jurisdiction of the Philippine Commission alone because of the preponderance of non-Christians among its inhabitants, 10 per cent of the total revenue, so that a total of 60 per cent would go to support the work of the bureau.

Unfortunately, the Philippine Commission and the Philippine Assembly were unable to come to an agreement and no appropriation bill was passed by the Legislature, but the Commission, in legislating for the special government provinces, carried out the policy determined upon by appropriating 10 per cent of the total annual forest revenue for forest work therein. If corresponding action is taken by the Legislature when the next appropriation bill is passed the work of the bureau will be placed upon a firm and adequate foundation.

FOREST EXPLORATION.

A study has been made of the hitherto unknown region comprised in the watershed of the Abulug River in Apayao, and it has been found that red lauan, white lauan, apitong, narig, narra, hagachac, and guijo are to be had in considerable quantity. The data obtained will not only serve to call attention to the possibilities of this region, but will afford a basis for so regulating the operations of future licensees as to permit the fullest possible profit without endangering the permanence of the stand.

It is well known that the Philippines are rich in mangrove swamps, which should furnish valuable building timber, firewood, and very large quantities of tan bark, but little reliable information exists as to the extent and location of these swamps. A party is now exploring those on the southwestern coast of Mindanao, and in the future this work will be extended to Palawan, to certain of the Visaya Islands, and to the coast of Luzon. A cooperative agreement has been made with the Colorado Mining Co. for the making of a detailed working plan for the mangrove areas held under license by that company in Masbate.

DEFORESTATION.

Although enormous areas in the Philippines are still covered with virgin forest, reckless cutting and the vicious practice so long followed in connection with the making of cañings (forest clearings) temporarily occupied for agriculture and then abandoned have resulted in the complete deforestation of extensive areas, notably in Cebu, the most densely populated of the larger islands. The making of future pro-

vision for firewood and building timber in these regions is a question of present practical importance. Results thus far obtained indicate that tindalo, acle, narra, teak, molave, ipil-ipil, cacahuete, and lumbang can be grown successfully on land now occupied by cogon or worthless second-growth forest. Of these woods, the first three are very valuable for cabinet purposes and inside finishing; teak and molave are the best of construction woods; ipil-ipil and cacahuete quickly produce excellent firewood, and lumbang is valuable both for its wood, from which matches are made, and for its fruit, which furnishes a commercial oil.

THE MOUNT MAQUILING FOREST RESERVE.

Experiments in reforestation, and valuable silvicultural experiments as well, are being carried on in the Maquiling Forest Reserve, situated on Mount Maquiling, in the Province of La Laguna, and extending over an area ranging from a point slightly above sea level to an elevation of some 4,000 feet. This fine forest is situated near the center of an extensive deforested area, and its proper conservation and development are therefore of importance to many people. The making of improvement cuttings to bring about the more rapid growth of the more valuable tree species will result in much needless waste unless the bureau is authorized to sell the merchantable products thus obtained. I recommend that this be done and that the funds derived from such sale be made available for the furtherance of the reforestation and silvicultural experiments on the bureau.

FOREST SCHOOL GRADUATES.

The first class of students, numbering 16, has completed a two years' ranger course at the forest school. All of these young men are now employed in the bureau at salaries of ₱50 to ₱60 per month, and are rendering satisfactory service.

LICENSES.

There has been an increase of 100 in the total number of ordinary and exclusive timber licenses, and in addition there have been in force 461 firewood licenses, 569 bejuco (rattan) licenses, 339 licenses for other minor forest products, 999 gratuitous licenses for personal use, and 50 gratuitous licenses for public works, giving a total of 3,495 licenses, as against 3,460 during the previous year.

INSPECTION OF CUTTING AREAS.

The results of the inspection of cutting areas are increasingly satisfactory. Licensees are realizing that it is to their own interest to observe the very reasonable rules prescribed by the bureau, and the necessity for imposing additional charges as penalties for wasteful cutting arises with constantly decreasing frequency. Such offenses as occur are more frequently due to ignorance than to viciousness, and an educational campaign is being pushed as rapidly as the available force will permit.

INSPECTION OF PUBLIC LANDS.

Three thousand and sixty-three parcels of public lands were inspected. The number for the previous year was 1,829.

CAIÑGIN MAKING.

The making of unauthorized caiñgins, or forest clearings, which are invariably occupied for a season or two and then abandoned, with resulting destruction of valuable timber, and a steady increase in the areas occupied by useless cogon grass or inferior tree species, continues to be the most serious menace to Philippine forests, and has in the past resulted in the complete deforestation of extensive areas.

The bureau officials throughout the islands have made vigorous efforts to secure enforcement of the law prohibiting unauthorized caiñgin making. Unfortunately, there has in a number of cases been great slackness in prosecuting wanton violators of the law.

DESTRUCTION OF FORESTS DUE TO DROUGHT.

The extraordinary drought of the past year, unprecedented during the period covered by existing meteorological observations, has in some cases apparently killed large numbers of forest trees over extensive areas, and has led to destructive fires from which the forests of the Philippine lowlands had heretofore been almost entirely free.

FOREST WORK IN PALAWAN.

Heretofore lack of funds has prevented the establishment of a forest station in the great island of Palawan, where are situated very extensive public forests. Entrance into the bureau of Filipino graduates of the forest school has now made it possible to remedy this situation in part. An experienced head ranger has been assigned to Palawan and his work will be performed with Puerto Princesa as a base of operations. I have no doubt that his investigations will reveal conditions similar to those so recently remedied in Mindanao and that there will result great improvement in government supervision of cutting, increase in logging equipment, and the establishment of one or more sawmills, with resulting improvement in the forests and augmented returns to the government and to the lumbermen.

WORK OF FIRE WARDENS.

Under anything like normal weather conditions serious danger from forest fire exists only in the pine regions of northern Luzon. The practice of employing a limited number of fire wardens at important points in this region, such as Baguio and Bontoc, has been abundantly justified during this exceptionally dry year. Of 121 fires at Baguio, no less than 86, or 71 per cent of the total, were reported by the fire wardens. While carelessness is an important element in the starting of these fires, they are largely due to a continuance of the old Igorot custom of burning over the pine lands to improve pasturage. The resulting needless destruction of young trees is greatly to be deplored, especially in the vicinity of Baguio, where the rapid growth of the town causes a constantly increasing demand for lumber and firewood. It is in most instances impracticable to detect the persons who deliberately set these fires, which can not be prevented until the Igorots have been sufficiently educated to change their present beliefs and practices. It is highly important that all fires should be put out, and to this end they must be discovered as soon as possible after they start. The money employed in the payment of fire wardens has brought substantial returns.

NECESSITY FOR A CHANGE IN THE LAW RELATIVE TO THE MEASURING
OF LUMBER.

Under the existing law the measurements on which forest charges are based may be made on logs in the round or on sawed lumber at the mill or in the yard. I am of the opinion that the law should be so amended as to limit measuring to logs in the round, and that a proper reduction for natural defects, such as cavities, brashy heart, etc., should be specifically authorized. At present, practically without exception, measurements in the case of large concerns are made on sawed lumber as it passes through the mill, or even when stored in the yard. This practice is highly objectionable, for the following reasons: The government loses charges on all logs lost through the carelessness of lumbermen, and if timber is measured in the yard after long delay, on what has deteriorated and been destroyed, as well as on any that may have been smuggled out of the yard, stolen, or burned. But the most serious objection to this method of measuring is that it imposes no check upon the very wasteful sawing methods now prevalent in many mills, which result in the throwing away of large quantities of timber that might be saved and marketed. This causes needless financial loss both to the Government and to the lumbermen. If all timber were measured in the round, the lumbermen would be more careful in sawing their logs and would bear the full financial burden resulting from wasteful methods instead of avoiding, as they now do, payment on practically everything they waste, the present allowance for necessary waste being but 15 per cent. Several concerns have requested that their measurements be made in this way, on account of the decreased trouble to themselves, and the only determined opposition thus far encountered has been that of a concern holding a concession which contains the following language:

So long as forest laws and regulations are complied with timber will, as a rule, be measured at the mill after it is sawed and before it is shipped, and orders for payment will be issued at the time timber is measured.

I am of the opinion that my approval of the insertion of this provision was a serious error of judgment, and the concern in question has been detected in violations of the forest act and rules of sufficient gravity, in my opinion, to legalize and justify the cancellation of this provision.

EXCLUSIVE LICENSE AGREEMENTS.

Two exclusive agreements have been granted during the year. The first of these, covering a tract of pine land near Baguio, Benguet, contained a provision fixing a maximum price at which lumber might be sold to the public. The licensee was detected in a violation of this provision, was compelled to restore the amount collected in excess of the authorized charge, and was warned that any repetition of the offense would be considered a cause for canceling the license.

The remaining agreement, covering approximately 80,000 hectares of fine timber land in Mindoro, should ultimately become a very valuable concession, the proper and required development of which should go far toward meeting the existing shortage of native lumber in the Philippine market. It is an astonishing fact that, with our enormous forest resources, lumber in considerable quantity is still imported.

For the first time in the history of the Philippine lumber industry there was competition for the Mindoro concession. Heretofore the original applicant has been the only one to submit a bid.

The changed attitude of lumbermen, as shown by the competition for this concession and for the concession on Dumanquilas Bay, is in my opinion abundantly justified by the facts. Every lumber enterprise in the Philippines conducted with reasonable business efficiency is now bringing in large returns, and mill men are almost invariably using their profits to increase their plants and extend their operations.

A recent effort to discredit the Philippine lumber industry in certain of the lumber trade journals of the United States is believed to have originated with certain lumbermen who wished to secure and maintain a monopoly of the trade and the permanent maintenance of the abnormally high local prices which have heretofore prevailed. It is believed that this campaign has failed, and, as a result of the vigorous action taken by the bureau of forestry, has indeed resulted in a most desirable advertising of the commercial possibilities of the Philippine forests. Certainly nothing could be more desirable than a rapid increase in the utilization of the products of these forests, brought about in such a way as actually to benefit the forests and make of them a permanent source of wealth.

While the steady increase in the output of lumber should in the near future result in adequately supplying the local market, with the result that abnormally high prices can no longer be obtained, there is no reason to fear for the stability of the lumber industry, which, with improved methods and machinery, will be conducted on a more economical basis. We have at our very door a great possible market in China. The existing lack of a large export trade with the United States is due not to the lack of demand there, but to the inability of the local lumbermen to meet the demand which exists. The bureau has been working steadily to prepare the way for a future export business by making the properties of Philippine woods known in Europe and America, and it should be readily possible to build up a permanent and profitable export trade as soon as the necessary lumber is available.

An exceptionally favorable opportunity for advancing the work of paving the way for future export lumber trade will be afforded by the coming Panama-Pacific Exposition at San Francisco. It will be readily possible to make a very important exhibit at this time, and this should most certainly be done.

INCREASED EFFICIENCY OF THE BUREAU.

There has been during the year a determined effort to increase in every way possible the efficiency of the comparatively small force of workers which the present limited resources of the bureau make it possible to employ. This has involved a careful consideration of the work of the bureau, both as a whole and in its manifold details, and has resulted in eliminating some unnecessary employees, in simplifying accounting methods, in dropping some unnecessary blank forms and simplifying and improving others, and in the issuing of a manual of procedure which contains definite and detailed instructions for all classes of forest work.

IRRESPONSIBLE CRITICISM.

I regret to state that disloyalty to the bureau and to the service has been found in the case of a very limited number of the employees, who have indulged in irresponsible criticism. It is a rule of the department of the interior that any officer or employee who desires to criticize the acts or policy of any other officer or employee of the government not his own immediate subordinate will make such criticism in writing over his own name and will transmit it to the chief of his bureau, the secretary of the department, or the Governor General, as he may prefer. An officer or employee who thus brings to the attention of the responsible authorities any matter which in his opinion demands remedial action places his own motives above suspicion and sets in motion the proper machinery for remedying any untoward conditions which may be found to exist. Any officer or employee who indulges in irresponsible criticism, especially if such criticism is made to persons not having it in their power to remedy the conditions complained of, is guilty of an improper act and in my opinion should be disciplined. It is needless to state that in dealing with the above-mentioned matter no exception will be made to the general rule.

The following table shows the revenue derived from forest products during the year:

Revenue from sale of forest products, fiscal year 1912.

Province.	Amount.	Province.	Amount.
Agusan.....	P725.05	Misamis.....	P1,003.56
Albay.....	3,096.96	Moro.....	25,066.81
Ambos Camarines.....	10,188.92	Mountain.....	4,271.87
Antique.....	306.57	Negros Occidental.....	12,839.26
Bataan.....	12,343.35	Negros Oriental.....	2,403.23
Batanes.....		Neuva Ecija.....	4,181.46
Batangas.....	3,321.44	Neuva Vizcaya.....	69.79
Bohol.....	1,844.03	Palawan.....	3,053.67
Bulacan.....	5,234.09	Pampanga.....	2,545.48
Cagayan.....	10,507.49	Pangasinan.....	5,250.55
Capiz.....	2,384.09	Rizal.....	2,770.88
Cavite.....	727.67	Samar.....	2,465.57
Cebu.....	8,015.52	Sorsogon.....	8,795.22
Ilocos Norte.....	1,453.20	Surigao.....	532.27
Ilocos Sur.....	3,368.88	Tarlac.....	1,076.67
Iloilo.....	20,689.11	Tayabas.....	7,721.82
Isabela.....	2,324.13	Zambales.....	1,553.95
La Laguna.....	1,153.40		
La Union.....	1,226.25	Total (net collection).....	354,685.37
Leyte.....	6,141.56	Refunds ¹	15,033.92
Manila.....	168,977.12		
Mindoro.....	5,054.10	Total.....	369,719.29

¹ Refunds on timber used in construction and equipment of railways, Act. No. 1544.

The above list shows the places where the forest charges were collected and not always where the timber was cut. This accounts for the large receipts shown by the principal market centers, such as Manila, Iloilo, and Cebu.

For further details of the work, see the annual report of the bureau for the current year, which in this instance has been prepared by the acting director, the director being absent.

BUREAU OF SCIENCE.

DEATH OF THE DIRECTOR.

On April 17, 1912, the bureau of science suffered an irreparable loss in the death of Dr. Paul Caspar Freer, under whose wise and capable direction it was organized.

In 1901 an act was passed providing for the centralization of the laboratory work of the government and for its performance by a bureau of government laboratories. On June 20, 1901, Dr. Freer was appointed superintendent of government laboratories and placed in charge of this bureau. The success with which he carried out the work assigned to him led to a further centralizing of the scientific work of the government and to the establishment of the existing bureau of science, of which he was appointed director.

He was a member of the board of health which was charged with the public health work of the islands until the bureau of health was established, and in this capacity rendered distinguished service in connection with the cholera epidemic of 1902.

Dr. Freer's scientific knowledge was of extraordinary breadth and accuracy. He was an exceptionally able investigator and was particularly skillful in wisely directing the investigations of others.

He conceived and carried to a most successful issue the rather daring scheme of publishing the Philippine Journal of Science, thus making it possible to give promptly to the world the results of the large amount of scientific investigation which has been carried out under American rule in the Philippine Islands.

His activities were by no means confined to his own bureau. He took a keen interest in the plans for the establishment of the college of medicine and surgery and served as its dean until his death. He probably had a fuller knowledge of matters pertaining to university organization than had any other resident of the islands, and the president of the University of the Philippines has often publicly acknowledged the obligation which he feels to Dr. Freer for his helpful advice. He was one of the leading spirits in the organization of the Far Eastern Association of Tropical Medicine, which has brought into helpful relationship the scientists actively engaged in improving sanitary conditions throughout the Orient. With one exception he had been in the service longer than any other bureau chief. Although the work of his bureau is now in able hands and will continue uninterrupted, his own particular place can never be quite filled and the bureau of science, the insular government service as a whole, and the cause of scientific investigation and sanitary research in general lose heavily by his death.

He suffered from several acute attacks of illness prior to the one which caused his death. During these periods and for several weeks immediately subsequent to his death, Dr. Richard P. Strong, director of the biological laboratory, served as acting chief of the bureau.

Dr. Strong was also chief of the division of medicine in the Philippine General Hospital and was at the same time engaged in very important work on plague and beriberi. His health failed under the strain and he was obliged to enter the hospital as a patient. When only partially recovered from his illness he insisted upon resuming his work at a time when, in my opinion, he should have sought the

benefits derivable from a change of climate. He was, however, determined to prepare for publication the results of research work which he had completed, and fearing that an imperative order to leave the islands might do him more injury than would the continuance of his work for a brief period I allowed him to remain until it was completed. On May 26, 1912, shortly after Dr. Strong became incapacitated, Dr. Alvin J. Cox was appointed acting director of the bureau.

COMPLETION OF THE NEW WING.

The completion of the new wing of the laboratory building has provided adequate quarters for the division of mines, the sections of fisheries and ornithology, the entomological collections, and for the general scientific library, and the occupancy of these new quarters has made available for laboratory work rooms previously of necessity employed for purposes very different from those for which they were originally intended.

GROWTH OF THE WORK OF THE BUREAU.

The demands upon the bureau for routine work and for information and recommendation on scientific subjects steadily and rapidly increased. The cement testing work well illustrates this point. The following table shows the work done yearly since 1905:

	Cements tested.
1906.....	14
1907.....	185
1908.....	1,719
1909.....	3,596
1910.....	2,707
1911.....	6,542
1912 (first half of year only).....	4,563

It has been possible greatly to reduce the charge for tests as the number has increased. In 1906 it was ₱30 per sample; in 1907, ₱15 per sample, and to-day it is but ₱0.60 per sample. The practical result of the cement-testing work has been that while at the outset the government got poor cement and dealers were constantly dissatisfied, we are now obtaining good cement under modified specifications satisfactory alike to manufacturers, local dealers, and users. Incidentally it should be mentioned that the cement-testing laboratory has been entirely self-supporting.

We are now testing many other materials, such as reenforcing iron, steel, rope, wire, road materials, ties, cement pipes, concrete, mortar, building blocks, bricks, stones, cloth, and other similar materials. The machinery used can not be properly housed in any existing buildings and is in part at Bilibid Prison. The cement-testing laboratory is so crowded that one can hardly walk through it, and valuable apparatus is necessarily kept under overhanging eaves of outbuildings. This is not an economical arrangement.

All branches of the government which use construction materials realize the importance of proper tests. On this subject the director of public works has said:

This bureau recognizes the importance and necessity for scientific tests of all building construction material and believes that more adequate accommodations should be provided for this purpose.

The addition of a wing at the west end of the laboratory building similar in size to that which has recently been constructed at the east end would afford adequate space for all of the testing work above referred to and for much needed ore testing as well.

The plans for the existing new wing could be utilized, thus saving approximately ₱5,000. The remaining charges for the construction of the present wing amounted to ₱90,033.15. The importance of the work to be performed abundantly justifies such an expenditure. During one fiscal year there has been imported Portland cement to the value of ₱1,524,600. The value of the corresponding concrete was at least six times this, or ₱9,147,600. A gain or loss of 1 per cent in the efficiency of this material represents a money value of ₱91,476. This amount alone would be sufficient to build the testing laboratory.

ILOILO SUGAR LABORATORY.

This laboratory was opened in 1909. Although established in response to a popular demand, it was little patronized at the outset. By 1911 its work had so increased as to necessitate sending help from Manila at times. During the past year the work has further increased more than 100 per cent, and it has been necessary to assign a second man to it, thereby seriously interfering with other important chemical work at Manila.

There is every reason to believe that this work will continue to grow. It is most intimately associated with the development of one of the most important industries of the country. The Iloilo sugar laboratory should be given increased facilities, and there should be operated within easy access of it an experiment station where the results of growing cane from different countries can be ascertained and compared, and where new varieties can be propagated. It would be idle to argue concerning the cash value of such work as it is universally acknowledged.

With ideal conditions of soil and climate our average sugar crop to the acre is far below that of many other sugar-growing countries. Proper investigation and experimentation would promptly change this condition. There should be a sugar division in the bureau of science in charge of a head chemist aided by at least two assistant chemists, and ₱15,000 per year should be available for paying the salaries and other expenses of the division.

AQUARIUM.

The completion of the aquarium has been very greatly delayed. It has a unique setting in one of the bastions of the old city wall, and its grounds have been parked and are already beautiful. The glass intended for use in the tanks has proved too thin, having a factor of safety of less than two. The method of setting the glass provided for in the plans of the consulting architect proved unsatisfactory, as internal strains resulted. It has been decided to construct rigid iron frames with smoothly planed bearing surfaces against which the glass will be forced by uniform water pressure. Thicker glass has been ordered, and the aquarium can be opened soon after its receipt. The glass now on hand will be used later in smaller tanks.

Provision must be made for roofing the shark tank, otherwise the salt water used in the aquarium will be seriously diluted during torrential rains.

REPUBLISHING.

A number of books published by the bureau are, or soon will be, out of print. The demand for them continues. They ought to be republished. To avoid the necessity for more or less frequent appropriations, I recommend the establishment of a reimbursable fund to be used in republishing salable books which are out of print, the money derived from sales to be used in maintaining the fund.

POPULAR LECTURES.

A series of popular lectures has been given by the director and staff of the bureau of science under the auspices of the Manila Merchants' Association. They covered the following subjects:

- The Bureau of Science: Its Meaning to the Commercial Public and Its Work.
- The Philippine Alcohol Industries.
- Sugar Production in the Philippines.
- Roads and Road Materials.
- The Salt Production of the Philippines.
- Gold Milling and Mills.

These lectures are to be published by the Manila Merchants' Association and bound in a memorial volume in commemoration of Dr. Freer, at whose suggestion they were given.

GENERAL SCIENTIFIC LIBRARY.

The general scientific library is in the custody of the bureau of science. In it are placed such of the scientific books of the government as are not needed for constant reference. To it are sent the scientific journals. These must be bound in order to make them available for reference and to preserve them. Some 2,000 volumes should be bound annually. The cost of binding during the present year has been ₱8,400, while the cost of subscriptions to scientific journals has been ₱3,791.39, making a total expense of more than ₱12,000, apart from the cost of new books. At least ₱10,000 per year should be available for keeping up subscriptions to scientific journals and for binding.

BIOLOGICAL LABORATORY.

The biological laboratory has been very shorthanded during the year, owing to the illness of its director and the assignment of several of its men to work under other bureaus or offices of the government, such as the University of the Philippines and the Mariveles Quarantine Station. The volume of pathological work at the Philippine General Hospital has necessitated the detail of a resident pathologist there. One or two men have also been detailed for service in connection with each of the five leper-collecting trips made by the bureau of health. Nevertheless, the routine examinations have numbered 51,941, as against 35,645 for the previous year, an increase of 45 per cent.

PLAGUE INVESTIGATIONS.

The proceedings of the International Plague Conference, held at Mukden in 1911, of which Drs. Strong and Teague were members, have been edited by Dr. Strong and published by the bureau of printing. They make a noteworthy contribution to the literature of plague.

Cultures and pathological material brought from Manchuria, together with the observations made there by Drs. Strong and Teague, have made possible an extended study of the pathology, epidemiology, prophylaxis and immunity of pneumonic plague, and the important results of this study have been published in number 3 of section B of the Philippine Journal of Science for 1912.

AMEBIC DYSENTERY INVESTIGATIONS.

Very important investigations of entamebic dysentery have seemed to demonstrate that the cultivable amebæ common in surface water supplies are neither parasitic nor pathogenic; that *Entameba coli* is parasitic but not pathogenic; and that *Entameba histolytica* is both parasitic and pathogenic to man, causing the disease known as amebic dysentery. If these conclusions are correct, the common amebæ in surface water are harmless, and the direct or indirect sources of all infections in amebic dysentery are the existing cases.

THE HERBARIUM.

The total number of mounted specimens now in the Herbarium is 106,579, of which some 66,500 are Philippine. This collection, including as it does types or cotypes of nearly every known Philippine plant described within the past 10 years, is an asset of immense scientific value. Its cash value is at least ₱20,000. An exchange of botanical material for books has added many valuable volumes to the general scientific library.

Although great progress has been made, there still remain enormous areas in the Philippines which are botanically unknown or very imperfectly known. The percentage of novelties in collections is very high and many new forms are found even in collections from regions considered to be well known.

WORK OF THE ENTOMOLOGICAL SECTION.

The year has been marked by an increasing amount of routine work in the determination of injurious and other insects, in suggesting methods of combating the existing insect pests of households and farms, in giving information, oral and written, as to silk culture and its possibilities, in the mounting of material collected or donated, and in the care of a rapidly growing collection of Philippine insects which has no equal anywhere in size or in number of identified specimens. More than 30,000 insect specimens were added during the year.

The successful campaign against flies and mosquitoes carried out at Baguio by Mr. Banks has already been referred to.

SECTION OF FISHERIES.

Special attention has been given during the year to economic fishery work. Papers relating to the shells used in the manufacture of buttons, those used in windows, tortoise shell, trepang, the shark-fin industry, and the manufacture of leather from marine skins have been published in the Philippine Journal of Science. These papers show that several profitable new fishing industries could be inaugurated in the Philippines.

Interest in the game fishes in the islands is increasing in a marked degree. It is confidently anticipated that in the not distant future sportsmen will come from all over the world to fish in Philippine waters, which offer extraordinary attractions. A card record of the game fishes of the islands, showing the location of all important catches, is being kept to the end that reliable information may be furnished those who desire it.

LABORATORY OF GENERAL, INORGANIC, AND PHYSICAL CHEMISTRY.

The routine work of the laboratory of general, inorganic, and physical chemistry has increased enormously, as is shown by the following table:

Nature of analysis or test.	1910	1911	1912
Rocks and minerals.....		25	46
Soils, fertilizers, cements, and clays.....	3,342	3,738	8,636
Metals and alloys.....	24	46	36
Road materials, stone, gravel, sand, and concrete.....		440	248
Water.....	82	164	146
Calorimeter determinations of fuels.....		29	9
Boiler tests of coal.....		10	2
Coal analyses.....		154	20
Standardizations of weights and measures; sets.....		1,066	990
Miscellaneous ¹	248		248
	3,696	5,672	10,381

¹ Work classified under "Miscellaneous" in 1910 is largely segregated in 1911 and 1912.

In performing this work the bureau of science has served 17 other bureaus of the government, and the city of Manila, the United States Army and Navy, and numerous provincial and municipal governments as well. The public is more and more frequently consulting the scientists of the bureau on practical questions pertaining to mining and on other commercial and industrial problems. In addition to the routine work there have been carried on an extended study of Philippine soils and an investigation of the oxidation and deterioration of coal. Important work has been done on sand-lime brick, and it has been demonstrated that an excellent product can be made from local materials. The same statement holds for Portland cement.

LABORATORY OF ORGANIC CHEMISTRY.

This laboratory is chiefly occupied in performing work necessary in connection with the enforcement of the pure food and drugs act. There were 1,921 samples examined during the year, an increase over the previous year of 29 per cent.

DIVISION OF MINES.

There have been made 216 assays for private persons, 20 free assays for prospectors in new districts or on official requests, 327 assays on black sand research, 18 bullion assays, and 141 placer weighings. Tests have been made of ores from a number of places in the Philippines and from China, the bureau of science laboratory being the only place in the Orient where such work can be performed. Investigations into ores and ore deposits have already proved important to the mining industry.

The study of the geology of the Philippines has progressed slowly, owing to the very numerous requests from private persons for the services of the geologists to investigate and report on geological or engineering problems of economic value. The bureau makes reports of two kinds: (1) Confidential reports for private persons. The charge is ₱50 per day for the services of the chief of the investigating party and all expenses of the party. (2) Reports which are available for publication after six months. Such reports are undertaken only when it is believed that information of value to the public can be obtained. The charge is ₱8 per day for the chief of the investigating party and all expenses of the party.

The results of the investigations of the Paracale black sands have been particularly interesting, showing that the values thrown away in the black sand concentrates, or lost on account of the large quantities of black sand present, are almost equal to the value recovered by the dredge. Important results were obtained from screen tests, amalgamation tests, concentration tests, and magnetic separation tests.

The results of the year's field investigations into mineral deposits are set forth in the fifth annual bulletin of the mineral resources of the Philippine Islands.

POWER PLANT.

The existing plant has necessarily been run close to the danger limit in providing the light, power, hot water, steam, and vacuum required by the bureau of science, the college of medicine and surgery, and the Philippine General Hospital, but relief will be had in the near future. The installation of a new boiler unit is nearly complete and a 67-horsepower Otto producer gas plant is now being erected. This plant alone will furnish sufficient light and power for the three institutions above named. If it proves a success, it will materially decrease the cost of power production and will introduce a cheaper power for manufacture in the Philippines.

NEED OF AN INSTRUMENT MAKER.

Much work has been done in the machine shop, where standard measures have been manufactured or corrected and surgical instruments, beds, sterilizers, and nickel-plated objects have been repaired. The large amount of expensive apparatus now owned by the several colleges of the University of the Philippines and by the bureau of science makes it highly desirable to secure the services of a competent instrument maker, thus avoiding the heavy cost and long delay now necessarily incurred in sending instruments and apparatus away for repair.

COST OF ELECTRIC CURRENT.

The cost of electric current continues to decrease. It has been ₱0.10279 per kilowatt hour.

LEAKAGE IN THE GENERAL HOSPITAL TUNNEL.

Of the total steam generated in the engine room during the year 5.46 per cent was consumed in pumping water out of the tunnel carrying the wires and pipes to the Philippine General Hospital. The bureau of public works has attempted to water-proof the tunnel so that this needless, heavy, continuous expense may be avoided. Rain water has not since invaded the tunnel in quantity, but there have not been storms sufficiently severe to give a final test.

PUBLICATIONS.

Heretofore it has not been my custom to list in detail the publications of the members of the bureau of science staff, but in order to give an adequate idea of the importance of the research work carried on by these men I here insert a list of the papers published during the year in the Philippine Journal of Science, marking with an asterisk (*) the names of the authors who are members of the bureau of science staff.

SECTION A.—*Chemical and geological sciences and the industries.*

- *COX, ALVIN J. Philippine soils and some of the factors which influence them.
- HERRMANN, RAF. A theory on the formation of the central Luzon plain.
- *BROOKS, BENJAMIN T. New Philippine essential oils.
- *— Editorial: The fluctuation in the value of ylang-ylang oil and some of its causes.
- *SMITH, WARREN D. Geological reconnaissance of Mindanao and Sulu. III, General and economic geology.
- *FERGUSON, HENRY G. The geology and mineral resources of the Aroroy district, Masbate.
- *SMITH, WARREN D., and *EDDINGFIELD, FRANK T. Additional notes on the economic geology of the Baguio mineral district.
- *ADAMS, GEORGE I., and *PRATT, WALLACE E. Geologic reconnaissance of south-eastern Luzon.
- *COX, ALVIN J. Chemical and physical characteristics of Philippine coal.
- *GIBBS, H. D., and *HOLMES, W. C. The alcohol industry of the Philippine Islands. Part II, Distilled liquors: Their consumption and manufacture.
- *GIBBS, H. D., and *AGCAOILI, F. Soja-bean curd, an important oriental food product.
- *GIBBS, H. D. The interference of hydrogen peroxide with the milk tests of formaldehyde.
- *GIBBS, H. D., *WILLIAMS, R. R., and *PRATT, D. S. Methyl salicylate. III, The coloration of methyl salicylate and some allied compounds in the sunlight.
- *GIBBS, H. D., and *AGCAOILI, F. The alcohol industry of the Philippine Islands. Part III, Fermented beverages which are not distilled.

SECTION B.—*Medical sciences.*

- *WALKER, ERNEST LINWOOD. A comparative study of the amœbæ in the Manila water supply, in the intestinal tract of healthy persons, and in amœbic dysentery.
- *SELLARDS, ANDREW WATSON. Immunity reactions with amœbæ.
- CHAMBERLAIN, WESTON P. Typhoid fever in the Philippine Islands.
- BLOOMBERGH, HORACE D. The Wassermann reaction in syphilis, leprosy, and yaws.
- *CROWELL, B. C. Addison's disease and adrenal tuberculosis.

- ARON, HANS, and HOCSON, FELIX. Rice as food. Investigation of the nitrogen and phosphorus metabolism on a diet consisting principally of rice and other vegetable foodstuffs.
- CHAMBERLAIN, WESTON P., and VEDDER, EDWARD B. The effect of ultra-violet rays on amœbæ, and the use of these radiations in the sterilization of water.
- A second contribution to the etiology of beriberi.
- A study of Arneth's nuclear classification of the neutrophiles in healthy adult males and the influence thereon of race, complexion, and tropical residence.
- The so-called X-bodies as artefacts in glass slides.
- CHAMBERLAIN, WESTON P. Observations on the influence of the Philippine climate on white men of the blond and of the brunette type.
- A study of the systolic blood pressure and the pulse rate of healthy adult males in the Philippines, based on 6,847 blood-pressure readings on 1,489 individuals and an equal number of pulse counts on the same persons. 127 p.
- The red blood corpuscles and the hæmoglobin of healthy adult American males residing in the Philippines. Based on 1,418 red cell counts and 1,433 hæmoglobin estimations performed on 702 soldiers.
- The occurrence in the Philippines of associated spirochætæ and fusiform bacilli in ulcers of the throat (Vincent's angina), of the mouth, and of the skin, and in lesions of the lungs (bronchial spirochætosis).

THE PHILIPPINE JOURNAL OF TROPICAL MEDICINE.

- *FREER, PAUL C. The result of the past two years' work in the study of tropical sunlight.
- *CROWELL, B. C. Mucocœle and diverticulum of the vermiform appendix of inflammatory origin.
- CHAMBERLAIN, WESTON P., VEDDER, EDWARD B., and *WILLIAMS, ROBERT R. A third contribution to the etiology of beriberi.
- *WALKER, ERNEST LINWOOD. The Schizogony of *trypanosoma evansi* in the spleen of the vertebrate host.
- ANDREWS, VERNON L. Infantile beriberi.
- *GIBBS, H. D. A study of the effect of tropical sunlight upon men, monkeys, and rabbits, and a discussion of the proper clothing for the tropical climate.
- HEISER, VICTOR G. Typhoid fever in the Philippine Islands from the sanitary standpoint.
- FOX, CARROLL. Some common siphonaptera of the Philippine Islands.
- *STRONG, RICHARD P. I, Introduction. The expedition to Manchuria and the conditions under which the work was performed there.
- *STRONG, RICHARD P., and *TEAGUE, OSCAR. II, The method of transmission of the infection in pneumonic plague and manner of spread of the disease during the epidemic.
- *TEAGUE, OSCAR, and *BARBER, M. A. III, Influence of pneumonic plague.
- *STRONG, RICHARD P., and *TEAGUE, OSCAR. IV, Portal of entry of infection and method of development of the lesions in pneumonic and primary septicæmic plague. Experimental pathology.
- V, Clinical observations.
- VI, Bacteriology.
- *STRONG, RICHARD P., *CROWELL, B. C., and *TEAGUE, OSCAR. VII, Pathology.
- *STRONG, RICHARD P., and *TEAGUE, OSCAR. VIII, Susceptibility of animals to pneumonic plague.
- IX, Protective inoculation against pneumonic plague.
- *BARBER, M. A. X, Immunization of guinea pigs by vaccination with a virulent plague bacilli mixed with agar.
- XI, The infection of guinea pigs, monkeys, and rats with doses of plague bacilli ranging from 1 bacillus upward.
- *BARBER, M. A., and *TEAGUE, OSCAR. XII, Some experiments to determine the efficacy of various masks for protection against pneumonic plague.

SECTION C.—Botany.

- BECCARI, O. The palms of the island of Polillo.
- *FOXWORTHY, F. W. Philippine dipterocarpaceæ.
- GAMBLE, J. SYKES. A new species of schizostachyum.
- *ROBINSON, C. B. Urticaceæ from the Sarawak museum.
- Philippine urticaceæ, II.
- DUNN, S. T. Philippine milletias.

- *ROBINSON, C. B. *Alabastra philippinensia*, III.
 COPELAND, EDWIN BINGHAM. *Cyathea* species novæ orientales.
 RADLKOFFER, L. *Simarubacearum* genus novum philippinense.
 *MERRILL, E. D. The Philippine species of *begonia*.
 AMES, OAKES. Notes on Philippine orchids with descriptions of new species, IV.
 BRAND, A. Additional Philippine *symplocaceæ*, II.
 BROWN, W. H. The mechanism of curvature in the pulvini of *mimosa pudica*.
 COPELAND, E. B. The genus *theyeria*.
 — The origin and relationships of *tænitis*.
 COPELAND, EDWIN BINGHAM. New or interesting Philippine ferns, VI.
 — New Sarawak ferns.
 — New Papuan ferns.
 GROVES, H. & J. *Characeæ* from the Philippine Islands.
 WESTER, P. J. A contribution to the nomenclature of the cultivated anona.
 *MERRILL, E. D. *Sertulum bontocenæ*: New or interesting plants collected in Bontoc Subprovince, Luzon, by Father Morice Vanoverbergh.
 — Notes on the flora of Manila with special reference to the introduced element.
 AMES, OAKES. Notes on Philippine orchids, with descriptions of new species.
 V, The genus *Bulbophyllum* in the Philippine Islands.

SECTION D.—General biology, ethnology, and anthropology.

- WORCESTER, DEAN C. Newly discovered breeding places of Philippine sea birds.
 — Hybridism among boobies.
 *MCGREGOR, RICHARD C. Record of a puffinus new to Philippine waters and description of a new species of micranous.
 SHUFELDT, R. W. The skeleton in the flying lemurs, *Galeopteridæ*.
 PEARSE, A. S. Concerning the development of frog tadpoles in salt water.
 *BEYER, H. OTLEY, and BARTON, ROY FRANKLIN. An Ifugao burial ceremony.
 GRIFFIN, LAWRENCE EDMOND. A check list and key of Philippine snakes.
 *SEALE, ALVIN. The fishery resources of the Philippine Islands. Part IV, Miscellaneous marine products.
 *MILLER, MERTON L. The non-Christian people of Ambos Camarines.
 GRIFFIN, LAWRENCE E. The structure of the pallial tentacles of lima species.
 MOSER, J. Beitrag zur coleopteren Fauna der Philippinen.
 HOLLISTER, N. A list of the mammals of the Philippine Islands, exclusive of the Cetacea.
 GRIFFIN, LAWRENCE EDMONDS. The anatomy of *Aclesia freeri* new species.
 PEARSE, A. S. A new Philippine fiddler-crab.
 FELSCH, CARL. Zwei neue Lucaniden de Philippinen.
 WAGNER, HANS. Ein Neues Apion von den Philippinen.
 HELLER, K. N. Eine neue Gattung der Discolomidae (Coleoptera) aus der orientalischen Region.
 PEARSE, A. S. The habits of fiddler crabs.
 *MILLER, MERTON L. The Mangyans of Mindoro.
 SCHNEIDER, E. E. Notes on the Mangyan language.
 BEDDARD, FRANK E. The *Oligochaeta terricolæ* of the Philippines. Part I, The Genus *Pheretima*.

THE FLORA OF MANILA.

A manual of Philippine silk culture was issued early in the year and the printing of *The Flora of Manila*, by Mr. E. D. Merrill, has begun.

There has been a constant and increasing demand for some book which would enable students in the schools and others to take up the study of botany and to identify at least the commoner plants. The *Flora of Manila* will supply this want, and since the flora of the coast regions throughout the greater part of the Archipelago is similar to that of Manila and vicinity the book will be useful throughout the Philippine lowlands.

Further details of the work of the bureau of science will be found in its annual report prepared by the acting director.

PHILIPPINE WEATHER BUREAU.

The Philippine Weather Bureau has continued to perform, with its usual high degree of efficiency, its very valuable work of seasonably sending out warnings of the approach of the violent storms which periodically sweep through the Archipelago.

ILLNESS OF THE DIRECTOR.

To my great regret it has been necessary to allow its director, Rev. José Algué, S. J., to take a somewhat prolonged leave on account of serious ill health. Father Algué has, however, planned to spend his leave in ways which will be of profit to the insular government service and to meteorological science. Having been requested by the Bureau of Navigation of the Navy Department to state what modifications might be necessary in order to make his barocyclonometer available for use in the Atlantic Ocean, he will consult the records of Belen Observatory of Habana in order, if possible, to reach a final determination in this matter. He will also endeavor to arrange, during his stay in Europe, to have the instrument placed on the market at a lower price. His work at Manila remains in the competent hands of assistants trained under his direction.

INCREASED USEFULNESS OF THE BUREAU.

Father Algué has been tireless in his efforts to increase the practical usefulness of his bureau by extending the storm-warning service and by promptly replying to the constantly increasing number of requests for detailed information relative to climatic conditions in different regions of the Archipelago.

IMPROVEMENT IN TELEGRAPHIC SERVICE.

There has now been brought about a complete unification of the hours for the exchange of telegraphic advices relative to weather conditions between Japan, Formosa, the Philippines, Indo-China, Hongkong, and Zikawei, which greatly facilitates the making of really serviceable weather maps.

SEISMIC DEPARTMENT.

The present very complete equipment of the seismic department has rendered possible the carrying out of important studies which are being made in cooperation with scientists similarly engaged in other parts of the world.

The number of earthquakes reached the high figure of 230, exceeding the previous year's total by 42. Fortunately none of them was of destructive violence.

ASTRONOMICAL DEPARTMENT AND MAGNETIC DEPARTMENT.

The valuable work of the astronomical department and of the magnetic department has continued. Neither in the one case nor in the other do the results of this work lend themselves to a report

of this character. They will be found set forth in the annual report of the director of the weather bureau.

THE AMBULONG SEISMOLOGICAL STATION.

On February 1, 1912, the Philippine Legislature passed Act No. 2115, entitled "An act for the protection and assistance of persons living in the vicinity of Taal Volcano." This act was passed as a result of the dreadful loss of life caused by the destructive eruption of Taal Volcano which occurred on January 30, 1911. It provides for the establishment of a seismological station by the weather bureau near Taal Volcano, with a view to the issuance of timely warnings of any future threatened serious outbreak, and also for the purchase and maintenance by the bureau on Bombon Lake of a good launch designed not only to facilitate visits to the volcano but to be available in establishing and maintaining communication along the lake shore in the event of any future serious eruption.

Buildings for the station have already been completed, and as soon as the instruments are in place there should begin a series of investigations which will assuredly be of great scientific interest, and may prove of great practical value as well.

BUREAU OF LANDS.

INSUFFICIENCY OF THE SURVEYING AND DRAFTING FORCE.

The work of the bureau of lands has been kept well up to date throughout the year with the exception of surveying and drafting. The force at present available for this purpose is inadequate to meet existing needs, and in spite of the fact that its members have been called upon for overtime these branches of the work have steadily remained two or three months in arrears.

FRIAR LANDS.

The expectation that the receipts from friar lands for the fiscal year 1912 would exceed those of 1911 was not realized as the unprecedented drought seriously affected the rice crops on estates in the Provinces of Laguna, Rizal, and Bulacan and greatly injured crops of every description on the estates in Cebu. The resulting distress led the Legislature to pass an act making mandatory the suspension of rents or payment of installments of purchase price on friar lands if the crops were so injured or destroyed that their value was less than one-half of the value of an average annual harvest. This legislation led to the suspension of payments on estates in Cebu, Cavite, Rizal, and Bulacan and influenced unfavorably collections on all estates, although no suspensions were needed or authorized on the four estates in Laguna Province. It has now been held by the attorney general to be invalid, but the director of lands and the secretary of the interior are using their own powers to suspend payments, in accordance with the obvious will of the Legislature.

The following statement shows in summary form the results of the work accomplished during the year (in round figures) compared with that of the previous year:

Decreased area occupied ($1\frac{1}{2}$ per cent of the total area).....	hectares..	2,417
Number of lots sold increased.....		5,207
Number of lots leased decreased.....		203
Total number of lots disposed of increased.....		5,004
Area sold increased.....	hectares..	7,405
Area leased decreased.....	do.....	849
Total area disposed of increased.....	do.....	6,556
Percentage area disposed of increased.....	per cent..	4.3
Value of lots sold increased.....		P1,390,234
Value of lots leased decreased.....		65,061
Total value of lots disposed of increased.....		1,325,173
Annual contracted installments (without interest) increased.....		40,277
Annual contracted rentals decreased.....		1,977
Total contracted income (without interest) increased.....		38,300
Receipts from rents decreased.....		43,513
Receipts from sales decreased.....		71,656
Receipts from interest increased.....		103,834
Total receipts from all sources decreased.....		10,180
Administrative expense decreased.....		44,935
Irrigation expense increased.....		7,669
Total current expense decreased.....		37,266
Status at close of the year:		
Value of lots sold to date (40,729 lots, or 88,272 hectares).....		13,559,457
Value of lots leased to date (1,016 lots, or 3,225 hectares).....		268,921
Value of lots disposed of to date (41,745 lots, or 91,497 hectares)....		13,828,378
Value of lots undisposed of to date (8,206 lots, or 62,981 hectares)...		4,275,867
Annual contracted rentals.....		10,372
Annual contracted installments (without interest).....		677,972
Annual contracted interest.....		480,000
Total contracted income (estimated).....		1,168,344
Estimated delinquent installments outstanding.....		200,000
Estimated interest on delinquent installments.....		131,656
Interest accrued on undisposed land.....		210,447
Total receipts from all sources for the year.....		830,002
Possible receipts for the fiscal year 1913, provided all collections are made.....		1,500,000

The statement following shows in tabulated form the progress on friar lands estates during the year.

Statement showing progress on friar estates during fiscal year ending June 30, 1912.

Estate.	Areas.	Esti- mated occupied.	Percentage of total area, number of lots and area disposed of, and method.		By sale.		By lease.		Total disposed of.	
			By sale.		By lease.		By lease.		Total disposed of.	
			Number of lots.	Per cent of area.	Area.	Number of lots.	Per cent of area.	Area.	Number of lots.	Per cent of area.
	Hectares.	Per cent.			Hectares.			Hectares.		Hectares.
Banilad.....	1,872	75.0	778	28.1	525	357	44.1	826	1,135	72.2
Binagbag.....	282	82.0	422	81.0	228	4	1.6	5	426	82.6
Brian.....	3,554	96.0	2,943	95.9	3,410				2,943	95.9
Calamba.....	13,016	52.0	2,109	51.0	6,650	9	0.1	7	2,118	51.1
Dampol.....	927	100.0	375	100.0	925				375	100.0
Guiguinto.....	930	100.0	683	99.5	926				683	99.5
Imus.....	17,165	47.0	5,673	46.1	7,906	51	0.9	156	5,724	47.0
Isabela.....	19,607	0.3	93	0.3	59				93	0.3
Lolomboy.....	3,020	85.0	4,187	77.3	3,880	93	2.1	103	4,280	79.4
Malina.....	3,315	98.0	1,401	94.6	3,323				1,401	94.6
Matano.....	12	100.0	1	100.0	12				1	100.0
Muntinlupa.....	2,819	72.0	1,334	72.0	2,030				1,334	72.0
Naic.....	7,271	54.0	1,990	53.1	3,855	29	0.3	23	2,019	53.4
Orion.....	954	95.0	644	94.9	904				644	94.9
Piedad.....	3,813	85.0	682	67.4	2,571	27	15.2	578	709	82.6
San Fernando de Malabon.....	11,134	51.0	2,881	50.8	5,657	1			2,882	50.8
San José.....	22,485	100.0	2	100.0	22,485				2	100.0
San Marcos.....	87	100.0	2	100.0	87				2	100.0
Santa Cruz de Malabon.....	9,559	40.0	1,795	33.9	3,233	34	0.6	56	1,829	34.5
Santa Maria de Pandi.....	10,157	85.0	3,445	65.1	6,607	241	3.4	347	3,686	68.5
Santa Rosa.....	5,249	92.0	2,053	87.9	4,615				2,053	87.9
Tala.....	6,992	100.0	6,939	83.9	5,871	147	15.4	1,079	1,086	99.3
Talisay.....	8,158	35.0	6,297	30.7	2,511	23	0.6	45	6,320	31.3
Total.....	154,478	61.5	40,729	57.2	88,272	1,016	2.1	3,225	41,745	59.3
Total previous year.....	154,445	63.0	35,322	52.4	80,867	1,219	2.6	4,074	36,741	55.0

Estate.	Annual contracted receipts, excluding interest on deferred payments.			Receipts for fiscal year.					
	From rents.	From sales.	Total.	Rents.	Miscellaneous: Grazing, timber, and stone permits, sale of old timber.	Sales.	Interest on deferred payments.	Recovery of costs in court cases.	Total receipts.
Banilad.....	P1,657.00	P10,552.00	P12,209.00	P1,032.50	.....	P11,900.00	P6,560.97	.....	P19,493.17
Binagbag.....	26.00	2,223.00	2,331.00	35.00	.....	169.00	15.77	.....	219.77
Biñan.....	.....	30,644.00	30,644.00	.....	P147.88	41,489.00	20,714.63	P28.00	62,379.51
Calamba.....	125.00	57,350.00	57,475.00	155.20	1,558.55	80,104.00	33,249.17	28.00	115,094.92
Dampol.....	.....	8,940.00	8,940.00	1,831.00	150.00	7,510.88	4,918.98	10.00	14,430.86
Guiguinto.....	.....	9,137.51	9,137.51	.....	.....	8,176.44	5,361.84	.....	13,538.28
Imus.....	1,285.00	100,659.00	101,944.00	2,066.03	639.60	18,647.00	4,719.81	70.30	26,162.74
Isabela.....	.....	62,141.00	63,711.00	.....	.....	14.00	1.12	.....	13.12
Lolombay.....	1,570.00	26,918.00	26,918.00	954.56	.....	29,186.00	11,320.12	65.43	41,326.11
Malinta.....	.....	122.00	122.00	845.00	.....	3,465.00	2,701.28	.....	7,011.28
Malamo.....	.....	5,274.00	5,274.00	.....	.....	122.00	92.72	.....	214.72
Muntinlupa.....	.....	37,003.00	37,292.00	.....	230.97	8,694.12	3,534.71	.....	12,228.83
Nalc.....	289.00	8,446.30	8,446.30	1,178.17	.....	39,747.00	10,669.79	42.32	51,868.25
Orion.....	.....	18,127.00	18,408.00	.....	.....	8,675.78	2,141.70	.....	10,817.48
Piedad.....	281.00	46,816.00	46,818.00	35.50	.....	3,852.00	683.11	.....	4,570.61
San Fernando de Malabon.....	2.00	29,846.00	29,846.00	941.51	165.00	49,674.00	33,945.04	.....	84,725.55
San Jose.....	.....	29,846.00	29,846.00	.....	.....	29,846.00	22,742.61	.....	52,588.61
San Marcos.....	.....	565.60	565.60	.....	.....	565.60	475.11	.....	1,040.71
Santa Cruz de Malabon.....	696.00	37,598.00	38,294.00	308.00	27.00	24,103.00	7,094.72	.....	31,537.72
Santa Maria de Pandi.....	2,813.00	53,773.00	56,586.00	5,041.00	.....	28,995.00	5,774.17	82.50	39,892.67
Santa Rosa.....	.....	48,591.00	48,591.00	913.58	544.72	86,076.00	52,458.52	118.44	140,121.24
Tala.....	335.10	13,872.00	14,207.10	17.80	.....	4,101.00	2,730.19	3.00	6,851.99
Talisay.....	1,293.00	63,272.00	64,565.00	1,324.00	690.00	76,001.16	15,667.13	.....	93,682.29
Total.....	10,372.10	677,972.41	688,344.51	16,678.83	4,183.72	561,118.98	247,572.91	447.99	\$30,002.43
Total previous year.....	12,348.60	637,695.86	650,044.46	60,191.35	2,877.50	632,775.24	148,738.96	649.12	840,232.17

NOTE.—Changes in areas due to corrections in final surveys.

Statement showing progress on friar estates during fiscal year ending June 30, 1912—Continued.

Estate.	Current expenses.				Deficit fiscal year 1912, each estate.	Surplus fiscal year 1912, each estate.	Extraordinary nonrecurrent expenses: Surveys, preparation plans, and descriptions.
	Annual interest on purchase price at 4 per cent.	Administration.	Irrigation, maintenance, and repairs.	Total.			
Banilad.....	P8,749.98	P1,311.63	.....	P10,061.61	P1,325.33	P9,431.56	P87.13
Binaeag.....	1,434.91	110.19	.....	1,545.10	.....	.....	.....
Bifan.....	24,063.33	3,449.72	P1,584.86	29,097.91	.....	33,281.60	.....
Calamba.....	55,417.73	8,514.99	1,811.98	65,744.70	.....	49,350.22	.....
Dampol.....	6,025.90	864.75	.....	6,890.65	.....	7,530.21	.....
Guiguinto.....	6,222.72	932.59	.....	7,155.31	.....	6,382.77	.....
Imus.....	82,803.97	12,803.20	4,639.41	100,398.58	74,165.84	.....	.....
Isabela.....	12,788.64	1,983.88	.....	14,772.52	14,757.40	.....	.....
Lolomboy.....	38,920.65	5,980.63	.....	46,229.22	4,703.11	.....	.....
Malina.....	17,616.85	2,780.79	1,318.94	20,397.64	13,386.36	.....	.....
Matamo.....	8.47	.....	.....	75.76	.....	138.96	.....
Muntinlupa.....	3,507.08	598.45	.....	4,105.53	.....	8,128.30	.....
Nac.....	39,308.46	5,346.46	2,411.11	47,066.03	.....	4,802.22	.....
Orion.....	3,922.01	2,368.02	.....	4,490.03	.....	6,327.45	.....
Piedad.....	13,213.74	2,153.43	.....	15,367.17	10,796.56	.....	.....
San Fernando de Malaban.....	42,794.99	6,899.92	5,263.38	54,958.29	.....	29,767.26	.....
San José.....	23,902.57	3,433.60	.....	27,336.17	.....	25,252.44	.....
San Marcos.....	492.99	67.82	.....	560.81	.....	479.90	.....
Santa Cruz de Malaban.....	41,496.50	6,903.94	2,887.92	51,288.36	19,750.64	.....	.....
Santa María de Pandi.....	42,135.49	6,305.36	333.46	48,874.31	8,981.64	.....	.....
Santa Rosa.....	36,409.39	5,221.60	1,284.55	42,915.54	.....	97,205.70	4.30
Tala.....	8,694.35	1,517.36	.....	10,211.71	3,359.72	.....	55.78
Talsay.....	44,311.48	7,278.63	10.43	51,600.54	.....	42,081.75	.....
Total.....	554,437.02	85,035.43	21,596.04	661,068.49	151,226.60	320,160.54	147.21
Total previous year.....	554,437.02	129,970.30	13,926.75	698,334.07	1,55,746.47	168,933.94	31,530.69
						197,644.57	
						141,898.10	

1 Net surplus.

A portion of the Banilad estate is being held to await the decision of the proper authorities as to whether an Army post shall be located there. The lessees are anxious to purchase it.

Collections during the first half of the year were most satisfactory, but the ensuing crop destruction caused a subsequent serious falling off. On account of these special conditions only 25 suits were filed against delinquents. There were 274 such suits pending at the beginning of the year. The suits compromised numbered 70; executions, 42. There therefore remain pending 187 suits. Although the number of delinquents at present is larger than ever before, I believe that very many of them will pay as soon as a harvest renders it feasible for them to do so. The present total of delinquencies is approximately ₱200,000 for installments and purchase price and ₱132,000 for interest on deferred payments.

Num-ber.	Amount of loans.	Cultivation of sugar.	Purchase of cattle.	Purchase of sugar mills.
		<i>Hectares.</i>		
20	₱25,500	436	.....	.....
7	9,350	162	29	2
27	34,950	598	29	2

Four new loans were made during the year. On account of the drought and resulting crop failure nearly all of the loans which fell due during the year were renewed after investigation, showing that they were apparently well secured.

Estates are now administered through five local friar land offices under charge of Filipino agents who are supervised by three district inspectors.

The administrative expenses have decreased about 35 per cent as the result of reductions which have been feasible in the field and office force. Further reductions could be made during the present year were it not for the cost of necessary inspections and investigations in connection with requests for suspension of installments owing to the drouth.

The cost of maintenance and minor repairs of irrigation works for bringing water to some 27,000 hectares of land has been ₱21,600, which is at the very moderate rate of approximately 80 centavos per hectare per year.

In selling friar lands the limitations as to area of the public land act have been strictly adhered to, with the result that numerous sales which might have been made have been declined. The views of the director of lands and of the secretary of the interior on this subject are too well known to require restatement.

There are 62,981 hectares of vacant friar land available for sale at the average cost of ₱72 per hectare. The best agricultural public lands are purchasable at ₱10 per hectare, unless the price is raised by competitive bidding, which is practically never the case. The absurdity of attempting to sell the friar lands under the restrictions imposed upon the sale of public lands is self-evident, and this policy, if persisted in, will cost taxpayers of the Philippine Islands some ₱6,000,000, for which they will receive no substantial benefit. It

goes without saying that as equally good public lands may be purchased at prices less than those necessarily charged for friar lands the sale of the latter class of lands can not be anticipated if subject to the restrictions as to area which apply to the former class. With enormous tracts of the most valuable public lands lying uncultivated, and with the existing necessity for the importation of rice in order that the people may be fed, I believe that present restrictions on the sale of both public and friar lands are ill advised in the extreme. With severe restrictions as to cultivation we might very advantageously do away with narrow restrictions on areas purchasable.

The following tables give in detail the present status of sales and leases for each estate:

Statement showing values of friar estates sold, leased, etc., and annual contracted income, fiscal year 1912.

Estate.	Value of land, less improvements.	Value of land sold to date.	Value of improvements sold to date.	Value of land leased to date.	Total value of land disposed of.	Value of land not disposed of.	Annual contracted income.			
							Sale of lands.	Sale of improvements.	Leases.	Total.
Banilad.....	P282,384.60	P222,413.60	.....	P38,942.00	P261,355.60	P21,029.00	P10,552.00	.....	P1,657.00	P12,209.00
Binebag.....	25,615.68	20,956.68	.....	506.00	21,462.68	4,183.00	2,825.00	.....	26.00	2,351.00
Binan.....	709,927.04	684,135.04	.....	.....	709,135.04	25,792.00	36,044.00	.....	.....	36,044.00
Calamba.....	1,830,306.06	1,170,613.06	20,000.00	2,479.00	1,193,092.06	637,214.00	56,350.00	P1,000.00	125.00	37,475.00
Dampol.....	184,400.84	184,400.84	.....	.....	184,400.84	.....	8,940.00	.....	.....	89.40
Guiguinto.....	200,098.16	199,045.16	.....	.....	199,045.16	1,013.00	9,137.51	.....	.....	9,137.51
Inus.....	2,757,576.88	1,874,301.88	.....	25,505.00	1,899,806.88	857,770.00	100,659.00	.....	1,285.00	101,944.00
Isabela.....	406,263.17	1,089.17	.....	.....	1,089.17	404,574.00	.....	.....	.....	.....
Lolomboy.....	1,288,937.56	1,087,336.56	25,000.00	31,267.00	1,143,603.56	170,334.00	60,891.00	1,250.00	1,570.00	63,711.00
Malinta.....	597,588.88	568,904.88	.....	.....	568,904.88	28,684.00	26,918.00	.....	.....	26,918.00
Matamo.....	2,441.00	2,441.00	.....	.....	2,441.00	.....	122.00	.....	.....	122.00
Muntinlupa.....	132,111.37	96,937.37	.....	.....	96,937.37	35,174.00	5,274.00	.....	.....	5,274.00
Naic.....	1,153,786.58	794,182.58	19,989.00	5,265.00	819,436.58	354,339.00	36,003.00	1,000.00	289.00	37,292.00
Orion.....	123,838.94	116,554.94	.....	.....	116,554.94	7,284.00	8,446.30	.....	.....	8,446.30
Piedad.....	470,582.64	355,752.64	.....	28,723.00	384,475.64	86,107.00	18,127.00	.....	281.00	18,408.00
San Fernando de Malabon.....	1,377,373.50	995,058.50	.....	48.00	995,106.50	382,267.00	46,816.00	.....	2.00	46,818.00
San José.....	734,000.00	734,000.00	.....	.....	734,000.00	.....	29,846.00	.....	.....	29,846.00
San Marcos.....	14,839.50	14,839.50	.....	.....	14,839.50	.....	565.60	.....	.....	565.60
Santa Cruz de Malabon.....	1,348,798.62	737,174.62	.....	13,858.00	751,032.62	597,766.00	37,598.00	.....	696.00	38,294.00
Santa Maria de Pandi.....	1,498,883.24	1,092,139.24	.....	56,698.00	1,107,837.24	391,046.00	53,773.00	.....	2,813.00	56,586.00
Santa Rosa.....	1,126,943.21	992,749.21	.....	.....	992,749.21	134,194.00	43,891.00	.....	.....	48,591.00
Tala.....	1,321,337.05	278,222.05	.....	40,719.00	318,941.05	2,396.00	13,872.00	.....	335.10	14,207.10
Talisay.....	1,576,708.18	1,286,619.18	.....	25,911.00	1,311,530.18	265,178.00	63,272.00	.....	1,293.00	64,565.00
Total.....	18,224,702.80	13,469,467.80	89,989.00	268,921.00	13,828,377.80	4,486,314.00	674,722.41	3,250.00	10,372.10	688,344.51

THE SAN LAZARO ESTATE.

The following statement shows the receipts and expenditures of the San Lazaro estate for the year:

Receipts:

Rents received from July, 1911, to June 30, 1912, collected by collector of internal revenue. ₱65,182.72

Expenditures:

Salaries and wages, clerk and employees ₱1,836.28
Court costs paid 270.00
Miscellaneous: Printing, postage, supplies, etc. 85.10
Proportion general office expenses, Bureau of Lands. 1,824.01
4,015.39

Expenditures nonrecurrent:

Surveying and drafting 134.53
Filling lowlands, 30,000 square meters. 4,904.00
5,038.53

Total expenditures. 9,053.92

Net income over expenditures. 56,128.80

The tenants numbered 1,418, having decreased 13. The total contracted income is ₱57,740.04, an increase of ₱3,588. The total collections were ₱65,182.72, an increase of ₱13,711.41. Delinquent outstanding rentals have been reduced by ₱12,360.67. Sixty-seven ejectment suits were compromised by the payment of rent, 9 ejectments were made, and 1 case is pending.

At present leases may be issued for a period of not longer than 6 years. The income of the estate would materially increase were it possible to grant longer leases. It is recommended that the legislature authorize the granting of leases for terms not exceeding 50 years on a basis of an annual rental of 5 per cent of the assessed valuation, reassessment to take place every 10 years.

The following table shows public-land applications received during the year as compared with those received during the previous year:

	Fiscal year 1911.		Fiscal year 1912.	
	Number.	Area.	Number.	Area.
Homesteads.	2,789	<i>H. a. c.</i> 32,525 14 05	3,105	<i>H. a. c.</i> 36,962 98 07
Sales.	91	3,496 57 92	180	8,269 98 12
Leases.	229	61,903 9 89	112	37,392 32 24
Total.	3,109	97,924 81 86	3,397	82,625 28 43

Persons interested in the segregation of the expenses of the several estates are referred to the annual report of the director of lands, which gives the details.

HOMESTEADS.

The increase of 316 homestead applications would be encouraging were it not that within the same period more than 400 applications have necessarily been canceled for nonpayment of the required entry fee after the applicants have had 3 notices extending over periods from one to three years. Some 600 entrymen who had elected to pay by installment have become delinquent. Contests against entries for failure to comply with provisions relative to residence and cultivation are becoming common, but have usually lacked foundation and are prompted largely by the desire of some to reap where others have sown. Of 9 cases filed in the court of land registration for tracts of land which included homestead or free patent entries, 4 were dismissed on evidence obtained by public land inspectors, and victory was obtained for homesteaders and free patent claimants in every case but 1. Detailed information relative to homestead applications will be found in the annual report of the director of lands.

SALES.

One hundred and eighty sales applications were received as compared with 91 for the previous year. Thirty-three sales were actually accomplished, in 8 of which there was competitive bidding, the price in one instance rising to \$120 per hectare.

The table following covers all sales applications received to date under provisions of Chapter II of the public-land act.

Detailed statement covering sales applications received under the provisions of chapter 2 of the public land act, No. 926, during the period from July 1, 1911, to and including June 30, 1912, showing the status of the same June 30, 1912.

Province.	Applications received.		Rejected, canceled, withdrawn.		Pending correction.		Pending report from forestry bureau.		Pending appraisal or publication notice.		Sales accomplished.		Amount received.	Balance due.	Amount of sales.
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.			
Ambo Camarines.....	2	H. a. c. 16 57 28		H. a. c. 16 00 00	1	H. a. c. 16 00 00		H. a. c. 1 48 63		H. a. c. 1 48 00	1	H. a. c. 57 28	P50.00		P50.00
Antique.....	2	1 48 63					2	3 00 00							
Bataan.....	3	28 06 00	2	25 06 00			1	3 00 00							
Bulacan.....	7	72 14 82	5	66 11 14			2	6 03 68							
Cagayan.....	19	277 20 90	1	20 90	9	133 00 00	9	144 00 00							
Cebu.....	3	11 49 17	2	7 49 17			1	4 00 00							
Ilocos Norte.....	3	32 00 24					1	16 00 00							
Ilocos Sur.....	2	11 23 84	1	16 00 00	1	90 24	1	8 92 00							
Isabela.....	4	32 43 80					3	30 95 80	1	2 31 84 1 48 00					
Leyte.....	1	7 00 00	1			7 00 00									
Manila.....	1	04 06	1	04 06											
Mindoro.....	1	200 00 00					1	200 00 00							
Moro.....	18	5,161 21 18	3	39 04 02	5	5,012 00 00	9	94 17 16			1	16 00 00	48.00	P144.00	192.00
Mountain.....	3	19 66 93	1	5 88 35			2	13 78 53							
Negros Occidental.....	7	112 00 00					7	112 00 00							
Nueva Ecija.....	39	473 20 52	3	36 14 52	3	48 35 00	28	341 01 00	4	31 60 00	1	16 00 00	240.00		240.00
Palawan.....	3	1,056 00 00					3	1,056 00 00							
Pampanga.....	1	28 40	1	28 40											
Pangasinan.....	15	247 26 56	1	8 00 00	14	239 26 56									
Rizal.....	6	63 51 21					1	6 00 00	3	25 62 01	2	31 89 20	80.00	238.92	318.92
Samar.....	1	16 00 00					1	16 00 00							
Sorsogon.....	3	32 34 92					2	16 34 92							
Tarlac.....	8	113 50 19	4	53 00 80	4	70 80 75	4	60 49 39							
Tayabas.....	28	284 39 47	9	70 80 75	19	213 58 72	19	213 58 72							
Total.....	180	8,269 98 12	19	203 98 16	49	5,596 71 75	97	2,343 79 88	9	61 01 85	5	64 46 48	368.00	382.92	750.92

LEASES.

One hundred and twelve lease applications were received during the year. They cover an area of 3,739. 22. 22 hectares. The increase in number over the previous fiscal year was 69.

The following table shows the status of all lease applications received prior to July 1, 1912:

Detailed statement covering lease applications received under the provisions of Chapter III of the public land act No. 926 during the period from July 26, 1904, the date of taking effect of the public land act, to and including June 30, 1912.

Province.	Applications received.		Pending correction.		Rejected or canceled.		Pending report from Forestry Bureau.		Pending survey.		Surveyed.		Leases executed.		Annual rental.
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	
Aguasan.....	6	H. a. c. 6,144 00 00		H. a. c.		H. a. c.	6	H. a. c. 6,144 00 00		H. a. c.		H. a. c.		H. a. c. .....	.....
Amboas Camarines.....	4	3,000 10 00		.....	1	10 00		.....	3	3,000 00 00		.....		.....	.....
Bataan.....	11	2,245 83 68		.....	5	725 99 62	1	117 00 00	1	500 00 00	2	770 60 40	2	131 71 73	P 69.58
Cebu.....	4	23 19 25	2	10 20 05	2	12 99 20		.....		.....		.....		.....	.....
Ilocos Norte.....	1	16 00 00		.....	1	16 00 00		.....		.....		.....		.....	.....
Isabela.....	1	1,024 00 00	1	1,024 00 00		.....		.....		.....		.....		.....	.....
La Laguna.....	1	30 00		.....	1	30 00		.....		.....		.....		.....	.....
Levite.....	1	20 53	1	20 53		.....		.....		.....		.....		.....	.....
Mindoro.....	8	3,864 16 92	3	181 71 50		.....	2	2,048 00 00	2	1,300 00 00	1	327 66 92		.....	.....
Moro.....	162	41,865 05 21	5	2,208 52 90	67	13,609 54 36	8	812 50 90	57	7,659 45 91	15	9,187 14 72	10	4,944 62 81	2,452.32
Mountain.....	2	1,056 00 00		.....	2	40 00 00		.....	1	1,024 00 00		.....		.....	.....
Misamis.....	3	920 00 00		.....	3	920 00 00		.....		.....		.....		.....	.....
Negros Occidental.....	1	6 08 69		.....	1	6 08 69		.....		.....		.....		.....	.....
Nueva Ecija.....	60	21,639 05 89	15	3,202 17 86	17	7,824 25 00	13	4,452 50 00	12	2,110 63 00		.....	3	1,821 37 23	910.67
Palawan.....	18	8,694 84 00		.....	6	1,444 00 00		.....	7	4,408 00 00	4	1,794 30 33	1	83 84 00	41.92
Pampanga.....	4	3,072 00 00	1	92 98 56	4	3,072 00 00		.....		.....		.....		.....	.....
Pangasinan.....	3	104 44 46		.....	1	4 00 00		.....	1	7 45 90		.....		.....	.....
Rizal.....	7	369 82 79	2	100 00 00	3	369 11 17	1	14 00 00		.....		.....		.....	.....
Sorsogon.....	2	4 34 64		.....	1	87 00		.....		.....		.....		.....	.....
Surigao.....	1	2 42		.....		.....		.....	1	2 42		.....	1	5 51 62	8.27
Tarlac.....	32	3,789 93 65	15	1,471 04 31	6	551 60 60	4	514 00 00	7	325 28 74		.....		.....	6.95
Tavabas.....	3	1,426 00 00		.....	1	.....	2	1,085 00 00		.....		.....		.....	.....
Union.....	1	30 00 00		.....		.....		.....	1	30 00 00		.....		.....	.....
Zambales.....	1	500 00 00		.....	1	500 00 00		.....		.....		.....		.....	.....
Total.....	340	99,295 42 13	45	8,290 85 71	124	29,477 47 33	38	9,050 15 59	93	20,364 85 97	22	12,079 72 37	18	6,990 55 03	3,489.71

FREE PATENTS.

Three hundred and eighty-one free patents were issued during the year, nearly all of which were for land in Sorsogon. Difficulty is encountered in getting applicants to make necessary proofs and in many instances they have to be persuaded to comply with the law in their own interest.

The work of investigating free patents has been completed in Rizal and Negros Occidental, and little remains to be done in Sorsogon and Benguet. Progress is being made in Union, Nueva Vizcaya, Palawan, Tayabas, and Batanes. Many applications are necessarily rejected because the applicants have not complied with the law relative to cultivation and occupation. Indeed, numerous applicants in Palawan have themselves asserted that they have never occupied the land described in their applications and have no intention of doing so. The following table shows the present status of all free patent applications to July 1, 1912:

Detailed statement covering free patent applications received under the provisions of Chapter IV of the public-land act No. 926, during the period from July 25, 1904, to and including June 30, 1912, showing the status of same June 30, 1912.

Province.	Applications received.		Rejected or canceled.		Pending investigation and survey.		Surveyed patents not issued.		Patents issued.		Contested.	
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.
Agusan.....	1	H. a. c. 12 50 00		H. a. c. 12 50 00		H. a. c. 129 80 06		H. a. c. 14 23 59		H. a. c. 513 59 11		H. a. c. 115 25 91
Albay.....	49	250 78 92	1	133 49 03	21	276 68 53	5	5 49 54	61	142 59 16		90 31 69
Ambos Camarines.....	221	1 800 63 72	23	1 189 71 40	25	214 37 74	38	1 505 15 57	1	1 29 02		69 82 61
Antique.....	83	1 118 64 02	135	977 26 57	16		12	52 63 63	4	19 89 93		
Bataan.....	56	226 43 28	25	129 48 88			5		15	201 40 24		
Batangas.....	5	6 67 29	2	6 00 03	3	07 29			14	133 72 18		
Benguet.....	1,435	4 285 15 80	37	147 27 04	972	2 399 93 46	38	1 505 15 57	4	15 97 65		
Bulacan.....	731	500 04 73	16	53 25 48	715	446 79 25	12	90 31 69	1	17 56 90		
Cagayan.....	72	614 65 46	30	287 83 89	25	265 51 29	5	52 63 63	1	10 74 96		
Cavite.....	1	1 29 02							1	1 497 14 32		
Cebu.....	24	157 28 59	13	97 28 26	1	1 92 35	1	41 74	345	601 39 42	17	61 27 99
Ilocos Norte.....	19	351 06 49	12	301 54 14	417	549 52 35			104	128 22 82		
Ilocos Sur.....	50	186 45 05	32	114 45 73	114	581 60 83			640	3 431 00 30		
Iloilo.....	376	2 772 53 55	113	700 89 57	263	2 671 63 98						
Isabela.....	824	2 218 50 74	278	735 09 49	546	1 533 41 25						
Laguna.....	60	109 29 17	48	80 39 31								
Lepanto Bontoc.....	157	450 10 63	8	26 28 97	124	365 71 03	25	58 10 61				
Leyte.....	113	763 08 01	44	322 14 12	69	454 84 95			14	133 72 18		
Mindoro.....	77	597 06 93	21	136 44 77	42	306 89 98			4	38 81 79		
Misamis.....	30	96 85 62	16	26 50 49	10	56 41 89			1	15 97 65		
Moro.....	8	91 27 54	6	74 57 34			1	70 20				
Negros Occidental.....	802	4 463 01 34	354	2 256 96 13	448	2 200 05 21						
Negros Oriental.....	1,489	2 290 93 84	105	162 27 82	1,384	2 128 66 02						
Nueva Ecija.....	257	1 034 26 10	114	382 58 03	123	651 68 07						
Nueva Vizcaya.....	2,599	3 903 02 43	90	209 88 30	2 509	3 693 14 13						
Palawan.....	2,100	5 690 01 34	63	754 28 87	2 030	4 844 14 95	5	54 00 62	2	17 56 90		
Pangasinan.....	423	1 461 20 75	62	247 51 04	361	1 213 69 71						
Rizal.....	326	1 017 05 18	181	527 26 78	144	479 03 44			1	10 74 96		
Samar.....	3	18 37 00	1	1 70 00	1	16 00 00	1	67 00				
Sorsogon.....	1,532	7 769 12 28	222	1 326 63 33	928	4 947 91 63			345	1 497 14 32		
Surigao.....	32	234 50 00	7	79 00 00	25	155 50 00						
Tarlac.....	2,463	1 928 18 58	112	1 174 26 19								
Tayabas.....	1,540	4 856 77 14	455	1 298 77 69	1,105	3 557 79 45	3	49 70 65	104	601 39 42	17	61 27 99
Union.....	113	453 66 49	21	86 26 67	92	367 39 82						
Zambales.....	34	182 18 14	11	88 51 10	2	6 10 81	3	5 66 73	18	128 22 82		
Total.....	15,885	52,050 56 65	2,722	14,167 77 06	12,013	33,348 27 76	473	1,902 13 55	640	3,431 00 30	17	61 27 99

TOWN SITES.

The following table shows the town sites thus far investigated, with their areas in those cases in which the surveys have been completed.

Name of town site:	Total area of town sites.	Sq. meters.
Baguio.....	55, 949, 800
Bontoc.....	3, 766, 487
Bosoboso.....	379, 992
Butuan.....	493, 158
Cabcaben.....	1, 615, 378
Cervantes.....	3, 439, 244
Cotabato.....	408, 740
Dansalan.....	645, 903
Dapitan.....	2, 149, 132
Davao.....	2, 432, 815
Dipulog.....	2, 861, 363
Impasugong (survey incomplete).	
Jolo.....	779, 726
Libungan.....	370, 601
Malay-Balay (survey incomplete).	
Mailog (survey incomplete).	
Malaban.....	1, 550, 703
Olongapo.....	3, 002, 635
Parang.....	648, 337
Pinamalayan (survey incomplete).	
Sibul Springs.....	250, 000
Sumilao (survey incomplete).	
Tancuran (survey incomplete).	
Tarlac.....	573, 694
Zamboanga.....	20, 282, 991

Only in Baguio and Bosoboso have lots been sold thus far. The following table shows the status of the sales up to July 1, 1912, in each case:

Name of town site.	Residence lots.	Business lots.	Total area of town site.
			<i>Sq. meters.</i>
Baguio.....	.....	.....	55, 949, 800
Lots sold.....	287	65	
Area.....square meters.....	2, 747, 732. 84	5, 088. 00	
Sales value.....	P68, 630. 84	P2, 702. 24	
Receipts, principal and interest, residence and business lots.....	P68, 065. 06		
Balance due.....	P4, 069. 73		
Patents issued.....	274	62	
Bosoboso.....	.....	.....	379, 992
Lots sold.....	59	18	
Area.....square meters.....	90, 822	18, 996	
Sales value.....	P93. 96	P19. 00	
Receipts.....	P112. 96		
Patents issued.....	77		

The Bosoboso town site was established for the convenience of persons ejected from the Mariquina watershed and lots for such persons were paid for by the city of Manila. Subsequent purchasers of lots in this town site will themselves pay for them, as the city has now discharged its obligations in the premises.

UNPERFECTED TITLES.

During the year the director of lands received 456 notices from the court of land registration of cases in which the applicants had requested the benefits of Chapter VI of the public-land act. The following table shows the action taken by him in each case:

	Cases.	Oppositions—Continued.	Cases.
No opposition.....	336	Mineral land.....	1
Opposition.....	99	Agricultural land.....	4
Opposition conditional.....	2	Civil reservation.....	23
Decreed.....	19		
	<hr/> 456		<hr/> 101
	<hr/>		<hr/>
Oppositions:		Title applied for by—	
No title.....	30	Municipalities and townships....	125
Insufficient title.....	3	Provinces.....	6
Difference in area.....	4	Private parties.....	325
Public plazas.....	19		<hr/> 456
Public land.....	17		

COMPULSORY REGISTRATION.

Hearings have been had in 3 cases of compulsory registration brought under the provisions of section 61 of the public-land act. The first case covered 906 lots, of which 879 were adjudicated to private persons, 3 to church societies, and 3 to municipalities, while 3 lots were declared to be public plazas and 14 were declared to be public land, leaving 4 not decreed. In the second case, covering 676 lots, 640 were adjudicated to claimants and 36 were declared to be public lands. In the third case, covering 728 lots, all but 5 were adjudicated to the parties in interest. While the cases thus far adjudicated have been very successful and the results are highly gratifying, the provisions of section 61 are neither complete nor comprehensive, and it is a matter of very great importance to property holders that a cadastral survey act identical with, or similar to, that submitted to the Legislature at its last session should be passed.

RESERVATIONS OTHER THAN TOWN SITES.

Thirteen reservations other than town sites have been made under the provisions of Chapter VII, section 70, of the public-land act. The following table shows their character and extent:

Reservations other than town site made under the provisions of the public-land laws during the fiscal year ended June 30, 1912.

Purpose of reservation.	Insular.		Provincial.		Municipal.	
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.
		<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>
School.....					7	8 32 99
Watershed and pipe-line right of way.....					2	27 30 98
Civil government.....	1	27 83 25				
Township.....					3	1 22 92
Cemetery.....					1	111 53 72
Road.....			1	1 99 24		
Constabulary.....	1	21 11				
Lighthouse.....	2	50 00 00				
Non-Christian settlement.....	2	31,320 64 33				
Total.....	6	31,398 68 69	1	1 99 24	13	148 40 61

The following table shows the purpose and area of all reservations other than town sites made during the fiscal year ended June 30, 1912:

Reservations other than town sites made under the provisions of the public-land laws during the fiscal year 1912.

Province.	Purpose.	Insular.		Provincial.		Municipal.		Total number of reservations and area.	
		Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.
			<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>
Agusan.....	School.....					1	2 89 33	1	2 89 33
Batangas.....	do.....					1	69 54	1	69 54
Cebu.....	Watershed and pipe-line right of way.....					2	672 43 02	2	672 43 02
Do.....	Civil government.....	1	27 83 25					1	27 83 25
Ilocos Sur.....	School.....					1	2 34 43	1	2 34 43
Do.....	Township school.....					1	49 59	1	49 59
Iloilo.....	Road.....			1	1 99 24			1	1 99 24
Laguna.....	Constabulary.....	1	21 11					1	21 11
Manila.....	Cemetery.....					1	111 53 72	1	111 53 72
Mountain.....	Township.....					3	1 22 92	3	1 22 92
Do.....	School.....					2	90 10	2	90 10
Moro.....	Lighthouse.....	1						1	
Palawan.....	do.....	1	50 00 00					1	50 00 00
Do.....	Non-Christian settlement.....	2	31,350 64 33					2	31,350 64 33
Sorsogon.....	School.....					1	1 00 00	1	1 00 00
Total ..		6	31,428 68 69	1	1 99 24	13	793 52 65	20	32,224 20 58

The following table shows the character and extent of all reservations made prior to July 1, 1912:

Reservations made under the provisions of the public-land act, to and including June 30, 1912.

	United States Government.		Insular.		Provincial.		Municipal.	
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.
Agricultural experi-ment stations.....		<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>
Do.....			6	2,203 68 00				
Cemetery.....			1	(¹)				
Civil public.....			1	27 83 25	11	309 93 33	10	111 53 72
Do.....					1	(¹)		8 47 18
Coal.....	2	6,479 00 00						
Constabulary.....			12	47 80 88				
Customs.....			2	10 13 28				
Forest.....			1	480 00 00				
Highway.....			1	28 00 00	2	2 98 10		
Do.....			1	(¹)				
Leper colony.....			1	39,672 00 00				
Lighthouse.....	3	10 00 00	38	237 75 05				
Do.....			28	(¹)				
Market.....							1	20 00
Military.....	30	28,611 35 41						
Do.....	7	(¹)						
Mineral Springs.....			2	4 38 91				
Monument.....			2	1 09 00				
Naval.....	2	1,681 00 00						
Do.....	4	(¹)						
Non-Christian settle-ment.....			2	31,320 64 33				
Parks.....			2	1 98 80			5	2 03 30
Penal colony.....			1	8,806 00 00				
Quarantine and Marine-Hospital Corps.....			1	10 00 00				
Quarry.....			1	37 00 00	1	109 21 50		
School.....					32	781 66 50	24	28 43 82
Water power.....			1	5,900 00 00				
Do.....			1	(¹)				
Wireless telegraph.....	4	3,805 00 00						
Water supply.....							4	27,131 43 02
Total.....	41 11	36,882 00 00 (¹)	73 32	88,771 23 00 (¹)	46 1	1,204 79 34 (¹)	45	27,281 56 30

¹ Not given.

APPLICATIONS TO LEASE FORESHORE AND LANDS UNDER WATER.

Eight applications to lease foreshore or lands under water were received. Of these, one has been canceled, one lease has been executed, two are ready for action, and the remaining four tracts applied for have been surveyed. Two leases have been executed in accordance with applications received during previous years. The total number of foreshore leases executed since Act No. 1564 took effect is seven, the annual rental due being ₱1,187.50.]

MANILA RECLAMATION AREA NO. 1.

There has been more activity in applying for leases in this area than ever before, the total area leased being 27,649 square meters, at an annual rental of ₱12,442.05. Blocks Nos. 14 and 17 were reserved for the bureau of supply and block No. 87 for the sales agency, while the United States Government has decided to reserve

blocks Nos. 41 and 42 for the United States Marine Corps. Applications have been received for the rental of blocks to be used for oil warehouses, coal wharves, coal yards, lumber yards, and sawmills. The area in question is not sufficiently large to accommodate warehouses likely to be needed for other purposes not involving serious danger of fire, and I am of the opinion that leases should not be granted for these or similar enterprises. They should in future be provided for, if necessary, by the construction of another reclamation area on the north side of the Pasig River.

REFERENCE TO OTHER TABULAR STATEMENTS.

Tabular statements covering the subject of lands forfeited to the government for nonpayment of taxes, coal claims, and all other mining claims, will be found in the annual report of the director of lands.

THE CADASTRAL ACT.

On October 3, 1911, the Philippine Commission enacted "the cadastral act" (Act No. 2075), which provides certain proceedings for the settlement and adjudication of land titles in non-Christian Provinces. Its purpose was to provide a complete and comprehensive method of cadastral registration of lands in the more populous sections of such provinces. The first case filed under this act was that of the Zamboanga Townsite, and it has fully demonstrated the practicability of adjudicating all land titles and interests in a given community at one time in the same proceedings and at a very moderate cost to the parties in interest. It would be most fortunate if the provisions of this act could be made applicable to the entire Archipelago.

SURVEYING AND DRAFTING.

Full details relative to the surveying and drafting accomplished during the year will be found in the annual report of the director of lands.

THE SCHOOL FOR FILIPINO SURVEYORS.

The steady progress being made in the training of Filipino surveyors is shown by the following table:

Fiscal year.	Ap- pointed.	Dropped.	Number employed July 1.	
			Year.	Number.
1907.....	6	1	1906	6
1908.....	9	5	1907	9
1909.....	17	4	1908	22
1910.....	21	3	1909	30
1911.....	21	7	1910	34
1912.....	16	3	1911	43
Total.....	90	23		67

Some of the students employed have been placed in charge of independent work, while others have been working under the direction of American chiefs of party in the execution of property surveys.

In general their work is fairly accurate, but thus far it has proved necessary to exercise close supervision over it. On the whole, the school must be considered a decided success.

NEED OF A CADASTRAL SURVEY OF MANILA.

There are some 7,677 separately owned properties within the city of Manila. The increasing number of surveys ordered by the court of land registration and the cost to the government of making them demonstrates the great need of a cadastral survey of the entire city. It is believed that it could be completed within a year with six field parties at work. Property owners would be furnished with correct plans of their holdings at a minimum cost. It is thought that the total net cost to the government would not exceed ₱ 50,000, and this amount would soon be saved by the avoiding of the necessity of resurveys at government expense. Such a survey would have the further great advantage that it would finally fix the exact boundaries of all lands belonging to the insular government and to the city of Manila, so that further encroachments thereon might be prevented.

DEATH OF JOHN R. WALDROOP.

I regret the necessity of reporting the death of Mr. John R. Waldroop, a surveyor, who was murdered about June 29, probably by "Remontados" living near Santa Inez.

He had been a faithful and efficient employee of the bureau for five years, and was a valuable man both on account of his skill as a surveyor and of his ability as an investigator. He was fearless in the performance of his duty and his untimely death is deplored.

RECOMMENDATIONS.

In closing, I have the honor to make the following recommendations:

1. That for the adequate protection of the non-Christian tribes a final effort be made to secure the concurrence of the Philippine Assembly in the passage for the territory under the jurisdiction of the Philippine Legislature of an act identical with, or similar to Act No. 2071, entitled "An act prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Mountain Province and the Provinces of Nueva Vizcaya and Agusan, and providing punishment therefor," and that in the event of failure, the attention of Congress be called to this important matter to the end that it may pass adequate legislation if it deems such a course in the public interest.

2. That more adequate dormitory facilities be provided, in connection with the Philippine General Hospital, for Filipino graduate and student nurses by the construction of a second nurses' home adjacent to the existing nurses' home and facing Taft Avenue.

3. That legislation be enacted giving to the bureau of forestry at the close of each fiscal year 50 per cent of the foreign revenues in lieu of an annual appropriation for the carrying on of its work in the regularly organized provinces.

4. That legislation be enacted authorizing the bureau of forestry to sell any valuable forest products obtained in connection with

improvement cuttings made on forest reservations, the revenues from such sales to be considered as current receipts of the bureau.

5. That legislation be enacted providing that all timber cut in public forests shall, when practicable, be measured in the round and specifically authorizing a reasonable reduction for defects such as hollows and brashy heart.

6. That there be established for the bureau of science a fund to be known as the republishing fund and to be expended for the republication of saleable books issued by the bureau which are out of print, the money derived from the sale of such books to be used in maintaining the fund.

7. That a new wing be added to the bureau of science building to provide adequate quarters for the testing of cement, ores, reenforcing iron, steel, rope, wire, road materials, ties, cement pipes, concrete, mortar, building blocks, bricks, stones, cloth, etc.

8. That on account of the growing importance of the sugar industry in these islands there be established a sugar division in the chemical laboratory of the bureau of science, and that for the present ₱15,000 be appropriated annually for the salaries and expenses incident to properly conducting the work of this division.

9. That legislation be enacted authorizing 50-year leases on the San Lazaro estate, rentals to be fixed at 5 per cent of the assessed values of lots and reassessment of lots to be made every 10 years.

ANNUAL REPORTS OF BUREAU CHIEFS.

Attention is invited to the fact that the reports of the several directors of bureaus under the jurisdiction of the secretary of the interior are printed and may be had upon application.

Respectfully submitted.

DEAN C. WORCESTER,
Secretary of the Interior.

The PHILIPPINE COMMISSION,
Manila, P. I.

REPORT OF THE SECRETARY OF COMMERCE
AND POLICE.

REPORT OF THE SECRETARY OF COMMERCE AND POLICE.

DEPARTMENT OF COMMERCE AND POLICE,
Manila, September 25, 1912.

GENTLEMEN: I have the honor to submit the following as the report of the work of the department of commerce and police for the fiscal year ending June 30, 1912, unless otherwise stated.

The secretary of commerce and police is by law given executive control of the bureaus of constabulary, public works, navigation, posts, coast and geodetic survey, and labor, the offices of the supervising railway expert and the consulting architect, and the general supervision of all corporations other than building and loan associations, banks, and trust companies.

Certain other duties not directly connected with any bureau or office in the department have been intrusted to the secretary by statute or executive order, and brief mention of some of them is made at the end of this report.

BUREAU OF CONSTABULARY.

PERSONNEL.

Brig. Gen. H. H. Bandholtz, United States Army, director of constabulary, was in charge of the bureau to February 4, 1912, on which date he was granted leave of absence. Col. J. G. Harbord, United States Army, assistant director of constabulary, was appointed acting director and was still in charge on June 30, 1912.

At his own request, Col. Herman Hall, United States Army, assistant director of constabulary, was relieved from duty with the bureau on September 23, 1911. The vacancy thus created was filled by the promotion of Capt. John B. Bennett, United States Infantry, who had served as inspector for constabulary since January 3, 1907.

Capt. Dennis E. Nolan, Thirtieth United States Infantry, inspector for constabulary, was at his own request relieved from duty on November 8, 1911. One of the two vacancies of inspector for constabulary was filled on May 22, 1912, by the detail of Capt. James C. Rhea, Seventh United States Cavalry. The other has not yet been filled.

Of the 89 officers and employees on duty at constabulary headquarters, Manila, 53 moved to Baguio, the summer capital, on February 15, 1912, and remained until June 4, 1912, Baguio being designated official headquarters during that time. The district director in command of the district of northern Luzon, with his immediate staff, transferred his headquarters from San Fernando, La Union, to Baguio, during the same period.

STRENGTH.

On June 30, 1912, the actual strength of the constabulary was 323 officers and 4,157 men, an increase of 20 officers and a reduction of 10 men as compared with the previous year.

During the 12 months 77 officers were appointed, 44 resigned, 4 died, and 1 was dismissed. Eight hundred and twenty-seven soldiers were enlisted for the first time; 1,202, discharged because of expiration of term of service, reenlisted; 994 were discharged and did not reenlist; and 30 died. This information concerning enlisted men does not include the First and Second Moro Companies, whose returns for June 30, 1912, on account of their isolated stations, have not yet reached headquarters.

MEDICAL DIVISION.

Strength, 17 officers and 100 men, distributed throughout the Archipelago.

Constabulary cases treated in hospitals.....	782
Constabulary cases treated in quarters.....	1, 751
Miscellaneous cases other than constabulary.....	1, 150
Members of constabulary treated by other than constabulary medical officers.....	113
Days lost in hospitals.....	13, 741
Days lost in quarters.....	12, 933

Malaria is at the top of the record with the largest number of cases, with venereal diseases second.

PEACE AND ORDER.

Notwithstanding that the prevailing drought of the last season resulted in a scarcity of food in some parts of the Archipelago, conditions as to law and order during the fiscal year have been generally satisfactory.

District of northern Luzon.—This district embraces the Provinces of Cagayan, Ilocos Norte, Ilocos Sur, Isabel, La Union, the Mountain Province, and Nueva Vizcaya. No organized band of lawbreakers has operated in it during the year. The practice of head hunting among the mountain tribes has almost stopped. The Mountain Province and Nueva Vizcaya are known as "special government" Provinces, and are administered under a special statute (Act No. 1396) by the secretary of the interior. An officer of the constabulary acted as governor in the Province of Nueva Vizcaya and another as lieutenant governor in the subprovince of Ifugao, Mountain Province.

District of central Luzon.—The Provinces embraced in this district are Bataan, Batangas, Bulacan, Cavite, Laguna, Mindoro, Nueva Ecija, Pampanga, Pangasinan, Rizal, Tarlac, Tayabas, and Zambales. Three well known bandits were killed by the constabulary of this district, two of them leaders of a band which has for a number of years operated near the Cavite-Batangas border and one a notorious constabulary deserter. There are now but two bandit chiefs at large, one in Cavite and one in Tayabas. Neither of these is active except as a fugitive. General conditions as to peace and order are good.

District of southern Luzon.—This district comprises the Provinces of Albay, Ambos Camarines, Leyte, Samar, and Sorsogon. The last

Pulahan of prominence in the Province of Samar, and the last active bandit in this district, Isidro Pompac, better known as "Otoy," was come upon and killed by First Lieut. Leon Puno, accompanied by detachments of the fourth and fifth companies of the Samar constabulary in October, 1911. In February, 1911, after months of persistent chasing by detachments of the regular constabulary forces, a company of Samar Pulahanes, some of whom had been with Otoy, had been organized to assist in the apprehension of this chief and the remnant of his band. This company contributed materially to the success of the constabulary. It was disbanded in November, 1911. The district director reports that conditions generally as to law and order are satisfactory.

District of the Visayas.—This district embraces the Provinces of Antique, Bohol, Capiz, Cebu, Iloilo, Occidental Negros, and Oriental Negros. No organized bands exist and no important leaders are at large. The last bandit of any consequence in the district was killed by the constabulary in July, 1911. Peace conditions have been satisfactory during the year.

District of Mindanao.—The district of Mindanao includes the Provinces of Agusan, Misamis, Moro (including the provincial districts of Cotabato, Lanao, Sulu, and Zamboanga), and Surigao. There has been a satisfactory condition of peace throughout this district except in the Lanao region and in Jolo. The carrying into effect of the disarmament order of the governor of the Moro Province, issued on September 8, 1911, has resulted in more or less disturbed conditions in the localities mentioned. Eleven men of the Lanao constabulary deserted in October, 1911, with arms. Eight of them are still at large, two have surrendered, and one has been killed. This disaffection is reported as having been due to local causes, and throws no reflection on the usefulness of the Moro properly led as a constabulary man.

BARRACKS AND QUARTERS.

The officers' quarters at Bontoc, Mountain Province, construction of which was commenced during the last fiscal year, have been completed and barracks for the enlisted men are now being built. Cost during the year ₱15,561.53.

At Baguio, Mountain Province, the construction of cottages for the superintendent and instructors at the constabulary school, barracks for enlisted men, a stable, and a septic vault has been completed. Cost during the year, ₱45,183.83.

A strong room for the storage of arms is under construction at constabulary headquarters, Manila.

The cost of alterations and additions to existing structures during the year has been ₱8,617.

PENSION AND RETIREMENT.

In every annual report of the secretary of commerce and police for a number of years mention has been made of the urgent need for the making of some adequate provision by the Government for a pension and retirement fund for the Philippine Constabulary and of the utter insufficiency of the present arrangement by which a small fund is built up out of deductions from the pay of officers and men. Under

present conditions, the following is the schedule of monthly pension payments for total disability, or death by reason of any wound, injury, or disease on account of which a man may have been drawing a pension, or on account of which had he lived he would have been entitled to a pension:

	Per month.
For a colonel and assistant director, or a lieutenant colonel and assistant director, or a major, or a captain.....	P40
For a first lieutenant or a second lieutenant.....	30
For a third lieutenant.....	20
For an enlisted man of whatever grade.....	6

The present law provides for the retirement of an officer or enlisted man after 20 or more years of continuous actual and satisfactory service, with an annual compensation equal to $2\frac{1}{2}$ per cent for each year's active service theretofore rendered by him of the total pay received annually by him at time of retirement, not to exceed the equivalent of 75 per cent of such annual compensation at that time. With the existing sources of income and the natural increase of obligations against the same this provision will be nullified a very few years after retirements begin on account of the obligations against the fund exceeding the income.

In order that a better provision for the pension and retirement of officers and men might be considered, the Governor General, on May 20, 1912, appointed a committee of three, representing the Philippine Commission, the Philippine Assembly, and the Philippine Constabulary, to study the question and prepare a bill for presentation to the Legislature. This committee has not yet completed its work, but it has already done much to arouse an interest in the subject, and it will undoubtedly recommend a bill calculated to increase the efficiency and stability of the service to an extent which will more than warrant the appropriation of funds for the purpose.

FILIPINIZATION.

The bureau of constabulary is in hearty accord with the policy of the Government to admit natives of the Philippine Islands to all positions in the service which they may be able to fill, and three times each year local examinations are held to determine fitness for appointment as officers. Only a few Filipinos apply for examination, and very few of the influential class, although every effort is made to attract them. Equal opportunities are offered within the organization for Americans and Filipinos, and the same standard of efficiency is required of both. It is still necessary for the bureau to depend upon military colleges in the United States for its young officers, and the proportions of Americans and Filipinos in the service remain about stationary.

SALARIES AND RANK.

It is again recommended that a law be enacted abolishing the grade of third lieutenant, and providing that all new officers commissioned shall enter the service as second lieutenants, serving the first two years at the pay now given third lieutenants—P2,400 per annum—and receiving at the expiration of that time, if deserving, P2,800 per annum. I recommend that the pay of captains be advanced from P3,400 to P3,600 per annum, and that of first lieutenants

from ₧2,800 to ₧3,000 per annum. Even this will not place the pay of constabulary officers of the grades named on a basis of equality with that of employees in other branches of the service in equally responsible positions.

The pay of private soldiers is much too small, being less than the pay of scouts or the wages of the common classes of servants and day laborers. Of the thousands of men who have worn the constabulary uniform, but 51 are in the service to-day who entered it in 1901. I recommend that the appropriation for the bureau of constabulary be increased to the extent that a reasonable advance in the pay of private soldiers may be granted.

MUNICIPAL POLICE.

Act No. 2169, passed by the Legislature on February 6, 1912, provided for the reorganization, government, and inspection of the police of the municipalities, or provinces and subprovinces organized under the provincial government act, and imposed on the bureau of constabulary, under the general supervision of the secretary of commerce and police, the duty of preparing regulations for the good government, discipline, and inspection of such municipal police, compliance with which is obligatory. The uniform, insignia, equipment, and the kind of arms to be used are prescribed by the director of constabulary, and are to be purchased with municipal funds. Only applicants who have the necessary requirements for eligibility are examined for the service, and only those who pass the examination may be appointed. The term of service is four years. Appointments to the position of chief of police are made by the provincial governor on recommendation of the municipal president, by and with the consent of the municipal council; appointments of policemen are made by the municipal president, by and with the consent of the municipal council.

The senior inspector of constabulary in each province is chairman of the examining board of three, of which the other two members are the third member of the provincial board and a municipal president designated by the provincial board. The first examinations under this law were held on June 25, 1912. Many more applications were received for the position of chief of police than policeman, and not enough passed the policeman examination to furnish a sufficient eligible list for appointment. On this account a special examination will be held in September, 1912, at which time, with the spread of knowledge of the requirements of the new law, it is expected that a sufficient number of eligibles will be secured. Subsequent examinations will be held during the month of January each year.

Under this law there will undoubtedly result a great improvement in the municipal police of the islands, one of the most apparent needs of the local administrations.

FIREARMS.

The number of firearms licensed by the director of constabulary, and held by government officials under special permit, in accordance with Act No. 1780, has decreased 26 during the year, the number thus held on June 30, 1912, being 6,829, as compared with 6,855 on the same date in 1911.

COST.

The total cost of operating the bureau was ₱3,188,065.83. For the previous fiscal year it was ₱3,154,556.09.

BUREAU OF PUBLIC WORKS.

PERSONNEL.

Only one important change took place among the administrative officials of the bureau in the course of the year. Mr. C. G. Wrentmore, who had been with the organization since September 1, 1908, and who at the time of his separation was chief irrigation engineer, transferred on June 2, 1912, to the faculty of the Philippine University, and on the same date Mr. W. L. Gorton, an engineer of considerable experience on large irrigation projects in the United States, was appointed to succeed him.

The average number of engineers of all classes in the employ of the bureau during the fiscal year was 118 as compared with 113 during the previous year.

There are now in the service 11 Filipinos, including temporary men not having a regular civil service status, rated as engineers.

The average length of time the men of the present engineering corps have been in the service is 2 years and 9 months, an improvement of 33 per cent, and the average salary of all engineers is ₱4,146.20 per annum, also an increase over the previous year.

The total number of employees in the bureau June 30, 1912, was 1,582, of whom 553 were Americans and 1,029 Filipinos, the number of Americans having decreased 2 per cent and the number of Filipinos increased 11 per cent since the same date of the previous year.

In addition to the bureau force regularly maintained there, 44 of the officers and employees of the general office, Manila, transferred to Baguio with the director on February 22, 1912, and remained until May 2, 1912.

PROVINCIAL DIVISION.

Engineering organization.—In our previous annual report it was stated that steps had been taken to make each province in the Archipelago a separate engineering unit, with a district engineer in charge of its public works, in place of the old method of having a district engineer in charge of the work in two or three or several provinces. Each of the 31 Christian provinces now has a district engineer as the single responsible head of the engineering work in that province, at all times in close touch with the provincial board and personally as much concerned in the welfare of the province as any provincial official. In practice this plan is working to the increased benefit of all concerned, particularly the provinces.

The Archipelago has been divided into five engineering divisions, each division in charge of a capable engineer. Division engineers have their headquarters at Manila, but the greater part of their time is spent inspecting the work in the provinces. They are the representatives of the central office in the field, and serve to bridge the gap between the men in the field and the administrative officials at headquarters. They quickly bring local needs and conditions to the attention of the proper superior officers, see that instructions from

P 310,547.¹⁴

INCREASE IN
EQUIPMENT



P 100,210.¹⁴

GENERAL OFFICE



P 140,333.⁴³



ROAD AND BUILDING

WORK

P 45,467.⁰²

P 440,637.⁶⁶

P 110,301.¹¹



P 249,300.⁰³

BUILDING WORK

P 2,657,601.³³

INCREASE IN
EQUIPMENT
SPECIAL FUNDS

P 55,850.⁴²

ALL OTHER
EXPENDITURES

P 322,047.¹⁹

ARTESIAN
WELL WORK

P 377,903.⁹⁹

P 56,812.⁵⁴

MISCELLANEOUS
WORK

P 579,658.²³

P 522,845.⁶⁹

IRRIGATION WORK

P 578,783.⁹³

FUNDS EXPENDED

FROM SPECIFIC APPROPRIATION

FOR PUBLIC WORKS P 8,377,208.³⁰

FROM APPROPRIATION OR
TRANSFER FOR THE BUREAU

P 19,780.¹⁰

FROM BUREAU RECEIPTS

P 794,113.⁰⁸

FROM BALANCE OF PRIOR YEARS

P 351,317.³⁵

P 1,343,233.⁵³

TOTAL EXPENDITURE

BALANCE SHEET

* APPROPRIATION

SUPERVISED

INCREASE IN SUPPLIES CARRIED FORWARD TO 1913, BUREAU % P 89,861.⁴⁰

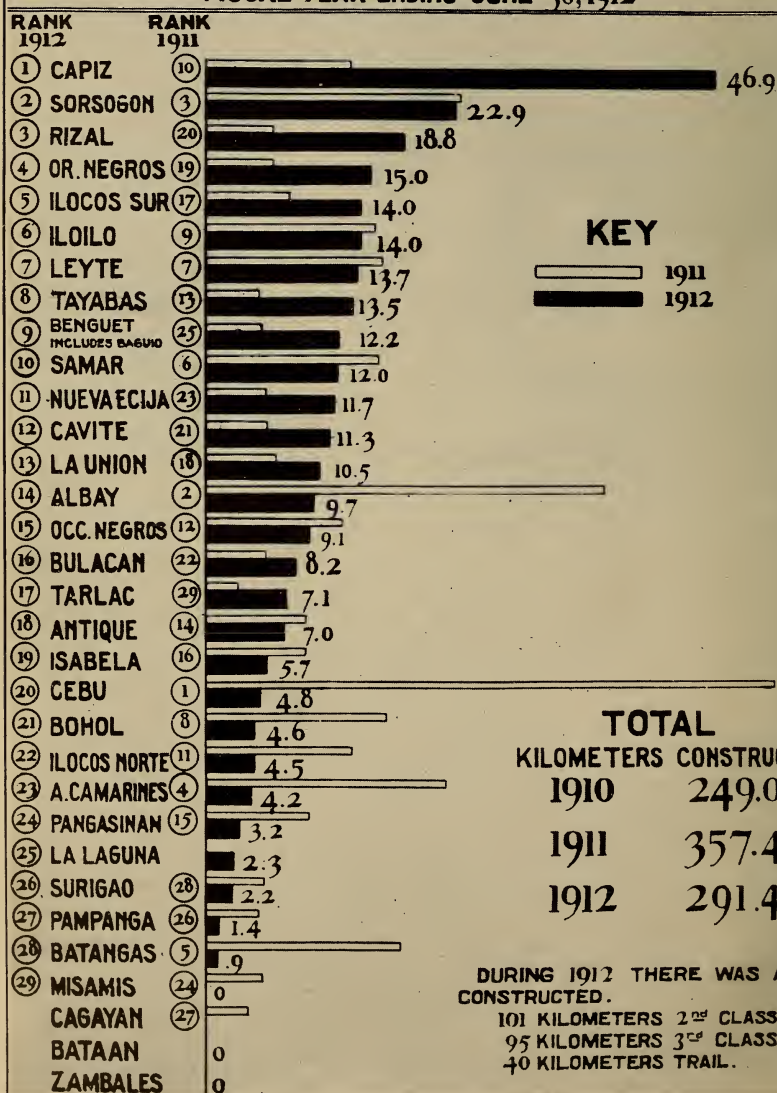
1912 P 9,720,441.⁸³

1911 P 9,793,119.⁵⁹

RANK OF PROVINCES

KILOMETERS OF FIRST CLASS ROAD CONSTRUCTED

FISCAL YEAR ENDING JUNE 30, 1912

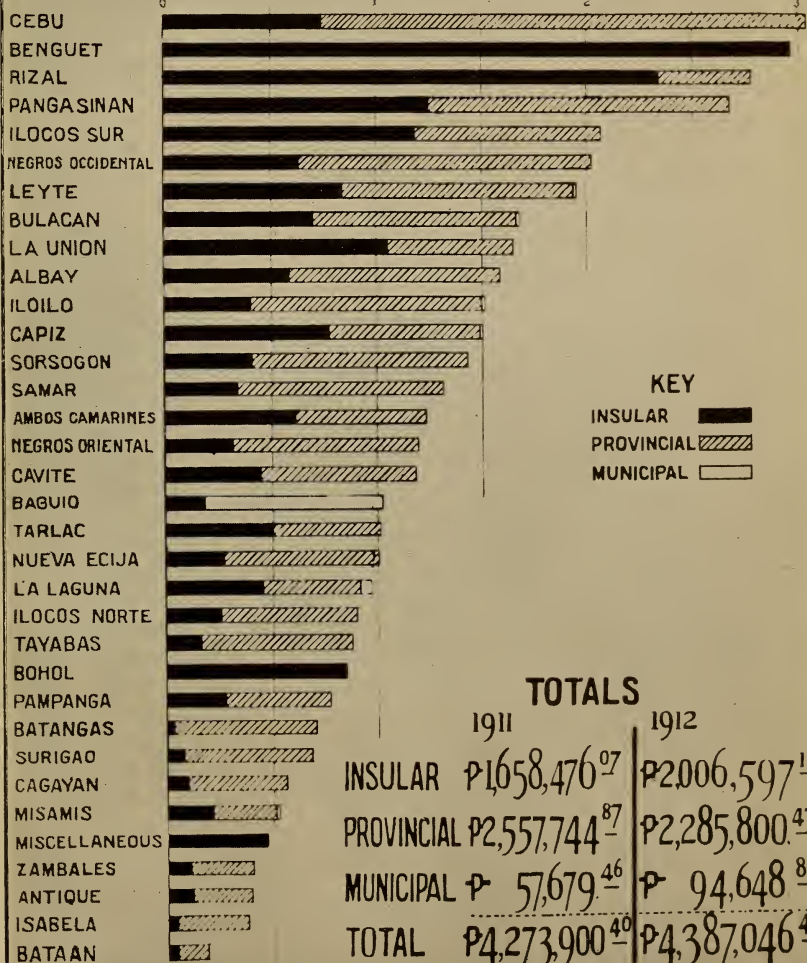


ROAD AND BRIDGE EXPENDITURES




TOTALS BY PROVINCES

FISCAL YEAR ENDING JUNE 30, 1912

PESOS-HUNDREDS OF THOUSANDS



KEY

INSULAR 
 PROVINCIAL 
 MUNICIPAL 

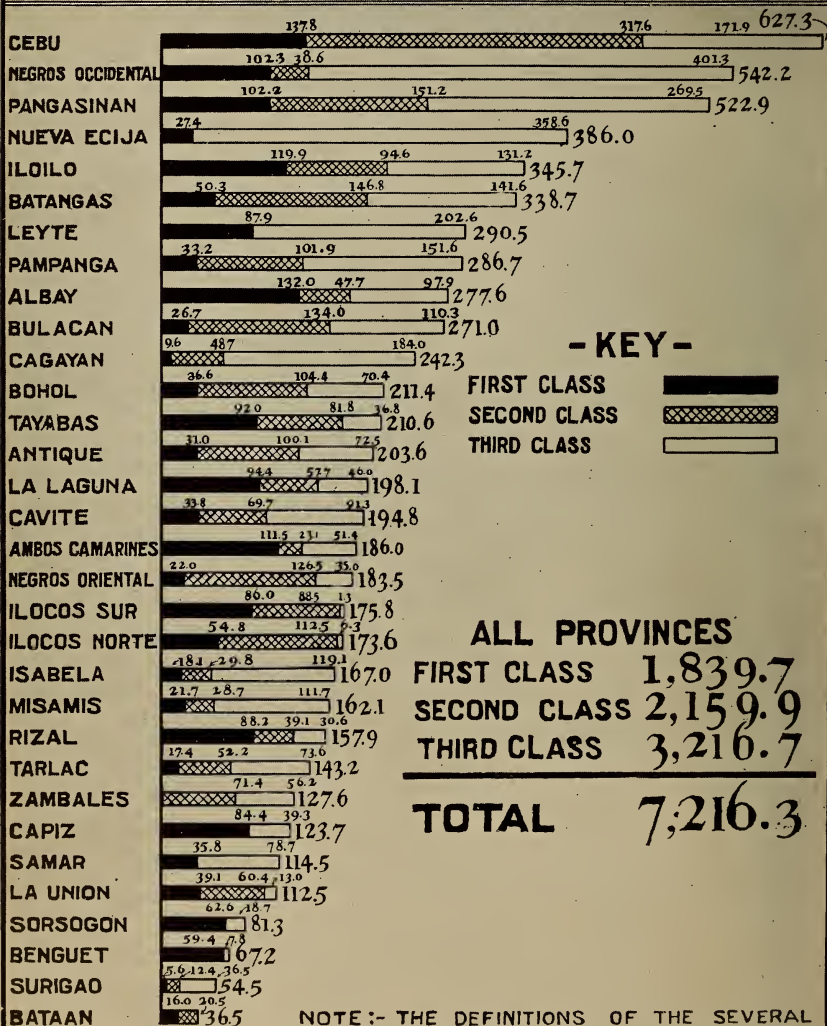
TOTALS

1911

1912

INSULAR	P1,658,476 ⁰⁷	P2,006,597 ¹²
PROVINCIAL	P2,557,744 ⁸⁷	P2,285,800 ⁴⁷
MUNICIPAL	P 57,679 ⁴⁶	P 94,648 ⁸⁴
TOTAL	P4,273,900 ⁴⁰	P4,387,046 ⁴³

TOTAL KILOMETERS ROAD ALL CLASSES IN EXISTENCE JUNE 30, 1912.



NOTE:- THE DEFINITIONS OF THE SEVERAL CLASSES WERE REVISED DURING THE YEAR.

headquarters are promptly and correctly carried out, and promote system and discipline in the organization. Through their close connection with and frequent presence at the general office of the bureau, more uniform standards of construction are being enforced in the field.

Roads and bridges.—Allotments of funds appropriated for the construction, improvement, and maintenance of roads and bridges to a total amount of ₱916,700, were made by the undersigned between July 1, 1911, and June 30, 1912, for 37 separate projects, and an additional ₱1,300,000 was distributed among the provinces on the basis of population, to be expended on road and bridge work in the discretion of provincial boards.

For about five years it has been the policy of the bureau to construct its bridges generally of permanent materials only. Concrete structures are the best adapted to the needs of the country, and are installed as far as possible. Three hundred and fifty-eight bridges and culverts, aggregating 1,700.06 meters span, costing ₱1,040,000, were constructed during the year.

Steady progress has been made in the construction of durable roads. Most of these are of the macadam type, surfaced with broken stone, gravel, or coral rock, as local conditions of traffic, cost, and availability may determine. Experiments have been made on some of the important roads near Manila with oil and bituminous binders, and our experience so far has shown them to be very satisfactory.

The total amount of money expended for the construction, maintenance, and improvement of roads and bridges during the 12 months was ₱4,387,046.43, of which ₱2,006,597.12 were insular government funds, ₱2,285,800.47 provincial government funds, and ₱94,648.84 municipal government funds. These amounts do not include the administration expenses of the provincial division, the division of engineering design, or the Baguio division.

There are now about 2,000 kilometers of hard-surfaced road in the islands, excluding those in the city of Manila and in the Moro Province. The total amount of road constructed during the year was: First-class, 291.4 kilometers; second-class, 101 kilometers; third-class, 95 kilometers; and trail, 40 kilometers. The actual length of roads in the islands officially designated as first class and turned over for maintenance to the provincial boards of the provinces in which they lie is 1,780.3 kilometers. Only 1 province out of the 31 in which public works are administered by the bureau has no first-class road whatever.

Satisfactory progress has been made on the Manila-North Road, which will eventually be a through highway about 560 kilometers in length from Manila to the town plaza of Bangui, Ilocos Norte, almost the extreme northern end of Luzon. The location of the entire road has been definitely determined, and construction is proceeding by sections as the funds become available and the separate local projects, each of which is a link in the final chain, are justified. A considerable portion of the layout is now completed as first-class road, and several new sections will be added during the coming dry season. Its route is through the Provinces of Rizal, Bulacan, Nueva Ecija, Pangasinan, Union, Ilocos Sur, and Ilocos Norte. The plan is to build it as a first-class road from Manila to Laoag, and as a second-class road from Laoag to Bangui.

The Manila-South Road, another through highway, from the capital to the southern extremity of the island of Luzon, is a second important trunk line for which we are working. This road will probably be about 480 kilometers, or 300 miles, long. From Manila to Gumaca, Tayabas, a length of 204 kilometers (129 miles), there is now a road open to wheeled traffic. Some sections of it, however, are poor and will have to be reconstructed. From Gumaca to Nueva Caceres, Ambos Camarines, the country is very mountainous and the construction of a highway over this section will probably not be undertaken for some time to come. From Nueva Caceres to Legaspi, Albay, there is a good road 104 kilometers (64.5 miles) in length. Investigations are now under way in regard to the feasibility of an interprovincial road between Sorsogon and Albay to continue the scheme.

Four thousand one hundred and twenty-four kilometers of first and second class road in 31 provinces were maintained in good condition at a total cost of ₱1,161,678.95.

Overdrafts.—In previous years there have been many instances in which works of construction and repair under the supervision of engineers of the bureau have cost more than the amount of money available, causing much embarrassment and adverse criticism. We have, however, to report that energetic steps have been taken to correct that condition and that since the close of January, 1912, in all the 31 provinces in which public works are carried on under the administration of the bureau's engineers, not one overdraft has been incurred on any project authorized since that date. This statement covers a field of approximately 800 active projects continuously. Not only has this record been made, but of the 24 overdrafts which existed on January 31, 1912, all of which were incurred before the inauguration of new methods, 14 have by the persistent efforts of district engineers been cleared off the books, and the others will soon be disposed of. Aside from conditions over which engineers have no control, there appears now to be no opportunity for carrying projects to a cost in excess of the money available, except through gross carelessness or inefficiency.

IRRIGATION DIVISION.

This division, until it undertook the construction of a large irrigation system in the vicinity of San Miguel, Tarlac, in 1910, had confined most of its operations to the securing of data with reference to irrigable areas, flow of streams, the investigating of apparently feasible projects, river control, and some minor works of construction, repair, and maintenance. A considerable amount of money had been expended with not much to show for it which was tangible to the public, and as some criticism was being made, the division about the first of the fiscal year under review bade fair to reestablish itself in public confidence through the satisfactory completion of the San Miguel project, which was to irrigate 4,000 hectares of land, and was 90 per cent completed on June 30, 1911. The estimate for the construction of this system, based on the original designs, was ₱300,000, which would probably have been overrun about 50 per cent.

Unfortunately, in July, 1911, the vicinity of the San Miguel irrigation project was visited by an extraordinary flood, the dam was carried out, and the irrigation division was given a reputation for ineffi-

UNSKILLED LABOR

DAILY RATES OF PAY

FISCAL YEAR ENDING JUNE 30, 1912

MANILA	P.80
ILOILO	P.80
LA LAGUNA	P.80
RIZAL	P.80
TAYABAS	P.80
ISABELA	P.77
SURIGAO	P.75
BENGUET	P.70
SORSOGON	P.70
CAGAYAN	P.68
CAVITE	P.65
MISAMIS	P.65
SAMAR	P.60
ALBAY	P.60
A. CAMARINES	P.60
BATANGAS	P.60
LEYTE	P.60
NUEVA ECIJA	P.60
OSMEÑA W.W.	P.60
BULACAN	P.55
OCC. NEGROS	P.55
BATAAN	P.50
BOHOL	P.50
CAPIZ	P.50
CEBU	P.50
LA UNION	P.50
OR. NEGROS	P.50
PAMPANGA	P.50
PANGASINAN	P.50
TARLAC	P.50
ZAMBALES	P.50
ANTIQUE	P.40
ILOCOS NORTE	P.30
ILOCOS SUR	P.30
MEAN 1912	P.579
MEAN 1911	P.561

NOTE

MANILA INCLUDES
LABOR USED BY THE DIVISION
OF BUILDING MAINTENANCE
ALTERATION AND REPAIR AND
THE CONSULTING ARCHITECT
BENGUET INCLUDES BATAAN

BULL CARTS

AVERAGE DAILY RATES OF PAY
FISCAL YEAR ENDING JUNE 30, 1912

RIZAL	P3.00
TAYABAS	P3.00
MISCELLANEOUS	P3.00
SAMAR	P2.95
LEYTE	P2.75
ANTIQUÉ	P2.50
BATANGAS	P2.50
BENGUET	P2.50
CAPIZ	P2.50
CAVITE	P2.50
N.ECIJA	P2.50
CAGAYAN	P2.20
CEBU	P2.10
MISAMIS	P2.10
ALBAY	P2.00
A. CAMARINES	P2.00
ILOILO	P2.00
LA LAGUNA	P2.00
OR. NEGROS	P2.00
TARLAC	P2.00
ISABELA	P1.85
PAMPANGA	P1.85
OCC. NEGROS	P1.80
SURIGAO	P1.75
SORSOGON	P1.60
BULACAN	P1.55
BOHOL	P1.50
LA UNION	P1.50
PANGASINAN	P1.50
ZAMBALES	P1.50
BATAAN	P1.00
ILOCOS NORTE	P1.00
ILOCOS SUR	P.90
MEAN 1912	P1.800
MEAN 1911	P2.036

NOTE:-
MISCELLANEOUS
INCLUDES MANILA AND
OSMEÑA WATER WORKS.

ciency which it will take much successful work to blot out. A searching investigation into this failure was made immediately by bureau officials, and it was found that the dam had been poorly located, inadequately designed, and would not have withstood an ordinary flood. The need for radical changes in the irrigation division seemed apparent and they were made, we hope for the better. At the present time there is not in the service of the bureau a single engineer who was directly responsible for either the design or estimate for this system.

Since the reorganization the work appears to be going on satisfactorily. A new dam of the Barrage type has been designed for the San Miguel system, and is under construction by contract. The new estimate of the final cost of the project, the irrigable area of which has been increased, including the cost of the structure which failed, is ₡1,084,560, which will bring the cost of the system to ₡271 per hectare, as compared with an average cost of ₡250 per hectare in the United States. The actual money loss involved in the destruction of the first dam, including some damages to the canal system which occurred at the same time, is estimated to have been ₡76,360. The main canals in the distribution system were not seriously damaged by the storm, and by means of temporary headworks have been in use to date. The completion of the entire contract is expected not later than August, 1913.

The total amount expended by this division during the year was ₡578,783.93, distributed as follows:

Cadastral surveys (7 projects).....	₡218, 965. 44
Preliminary location and surveys (32 projects).....	132, 145. 07
Construction (8 projects).....	69, 232. 66
Hydrographic (19 projects).....	56, 826. 01
River control (9 projects).....	25, 345. 99
Miscellaneous (13 projects).....	3, 300. 13
General office (2 projects).....	72, 968. 63
Total.....	578, 783. 93

Owing to the fact that a considerable unexpended balance of the continuing annual appropriation of ₡750,000 provided in Act No. 1854 was available from previous years for expenditure during the fiscal year 1912, the ₡750,000 which would by operation of the law have been credited to irrigation funds on July 1, 1911, was ordered held in the treasury, and no part of it was used during the year. It may be necessary, however, on account of the extensive construction work planned for the fiscal year 1913, to ask for the release of a portion of this amount.

A thorough irrigation law, the result of much labor on the part of the bureau of public works and a special irrigation committee, which has been a subject of discussion at two sessions of the Legislature, was finally passed on February 6, 1912. It provides in sufficient detail a system for the appropriation of public waters, and for the determination of existing rights thereto; for the public registration of all water rights; for the creation and use of water power; for investigations for and the construction, maintenance, and operation of irrigation systems by the government; for the repayment of money expended therefor; for the construction, maintenance, and operation of irrigation systems by private persons; for the inspection and regulation of all works pertaining to the use of water; and penalties for its violation. It is believed to be admirably suited to the needs of the country for many years to come.

ARTESIAN WELL DIVISION.

This division is one of the most popular in the bureau, as the beneficial results of its operations are immediately and directly apparent to the people. Its relations with provincial and municipal officials have been harmonious, and its only handicap is the comparatively small amount of money that can be provided for it annually. Few wells have been unsuccessful and the work has been economically performed. On June 30, 1912, there were 686 successful artesian wells in the islands. Expenditures during the 12 months totaled ₱446,309.05, distributed as follows:

Administration expenses.....	₱31,722.06
Increase in equipment.....	55,856.49
Maintenance of equipment.....	33,722.83
Expended on the work:	
Insular funds.....	244,994.16
Provincial funds.....	5,389.01
Municipal funds.....	6,219.44
Total.....	377,903.99

There were unexpended at the end of the year ₱88,922.36 insular funds.

The division, on June 30, 1912, operated either directly or by general supervision 25 deep well steam rigs, 14 additional of this class of equipment having been acquired during the year, and 42 jet rigs, a decrease of one by sale during the year. The steam rigs sunk 43 deep wells at an average cost of ₱21.09 a meter (₱6.43 a foot), including depreciation on equipment and interest.

BAGUIO DIVISION.

City of Baguio.—The bureau of public works has charge of the construction and maintenance of insular public works and the custody of insular government buildings in Baguio, the assignment of offices and quarters to government officials and employees during the season, the supervision of the employees' mess, and the equipment and rental of about 53 government-owned cottages.

The season of 1912, which commenced about the middle of February and closed about June 1, was the most successful Baguio has ever had. All accommodations, public and private, were taxed to their utmost, and there is a growing feeling of the permanency of the place. Many private residences have been erected during the year and others are contracted for. The advent of the railway, with its more certain means of transportation at lower rates than those at present imposed by the railway and Benguet automobile line combined, will enable many more people to take advantage of this delightful spot during the heated term of the year, and will stimulate building construction.

Very little additional building construction has been undertaken by the Government, although some improvements in quarters were made at Teachers' Camp and on the constabulary reservation. An addition to the Hotel Pines, which is a government building leased for a term of years, was completed in the early part of the season at a cost of ₱16,000, half of which was borne by the lessee.

Benguet Road.—In July, 1911, the terrific storm which swept over the island of Luzon seemed to reach its height in the vicinity of Baguio and the Benguet Road. In one day 38.8 inches of water fell, and

SUCCESSFUL ARTESIAN WELLS

TOTAL DEPTH TO JUNE 30, 1912.

METERS

BULACAN	10394.4
RIZAL	5541.9
PAMPANGA	4894.5
TARLAC	3612.2
NUEVA ECIJA	2100.4
BATAAN	2028.4
CAVITE	1965.7
A. CAMARINES	1884.6
BATANGAS	1702.0
PANGASINAN	1211.9
CEBU	1206.0
TAYABAS	1205.2
LA LAGUNA	931.4
BOHOL	927.4
OCC. NEGROS	812.1
ILOILO	796.0
MANILA	362.1
CAPIZ	306.2
SAMAR	242.0
LEYTE	240.1
ALBAY	229.3
CAGAYAN	221.9
SORSOGON	197.6
MISAMIS	187.5
N. VIZCAYA	158.2
AGUSAN	153.3
ZAMBALES	140.2
MOUNTAIN	159.7

ALL PROVINCES

NUMBER		TOTAL DEPTH		AVERAGE DEPTH	
1911	1912	1911	1912	1911	1912
68	111	9240.0 M	15692.8 M	135.6 M	141.4 M
470	575	22677.5 M	28019.4 M	48.2 M	48.7 M
538	686	31907.5 M	43712.2 M	59.3 M	63.7 M

DEEP WELLS

JET WELLS

ALL WELLS

during the four worst days the rainfall totaled 66.45 inches. This unprecedented precipitation on the bare sides of the canyon of the Bued River, into the walls of which the Benguet Road for a considerable portion of its length is cut, resulted in great damage to the lower half of the highway from kilometer 17 to Camp One. Two enormous slides, the contents of which were estimated at over 1,500,000 cubic meters, occurred at kilometer 13, forming a natural dam 150 feet high, and impounding the torrent to that height. During the few hours of the existence of this dam gravel was deposited for a distance of several kilometers above it to a height of 40 and 50 feet above the former river bed. Its bursting released a tremendous flood which carried everything before it, inflicting great damage to the road and its structures, and carrying out the suspension bridge built by the Manila Railroad Co. at Camp One.

The advisability of reconstructing the road was seriously questioned, but it was evident that adequate communication must be established with the summer capital and the mining district tributary thereto during the two or three years the railroad from Aringay to Baguio will be under construction. The temporary replacement of the old road was made much more feasible in September, when another heavy rainfall of 31 inches in 24 hours cut through the vast deposit of gravel and boulders which obliterated the old location, and swept a large part of it away.

The work of reopening the road was started in October and vigorously carried on until December 22, 1911, when automobile trucks were again able to travel its entire length. This work cost about ₱100,000, and while in many places it was far from permanent, it served the purpose, and the highway was not out of commission during a single day of the 1912 season.

On Friday, May 31, 1912, a suspension bridge of 360 feet span which was under construction to replace the temporary structure spanning the canyon of the Bued River at kilometer 13.1, fell and precipitated 21 workmen (15 Japanese and 6 Filipinos) onto the rocks of the gorge below. Eleven men were killed and the other 10 more or less seriously injured. Of those killed 7 were Japanese and 4 Filipinos, and of the injured 8 were Japanese and 2 Filipinos. Immediate steps were taken for the relief of the injured and of the families of those killed.

Searching examinations have been made into the cause of this accident, which had not been satisfactorily determined at the close of the year. At the time it occurred two 2-inch 7-strand steel wire cables with steel centers, on which the bridge was being suspended, were in place and the 21 men were engaged in laying the floor system. The cables had received about half of the total dead weight of the completed structure when one end of one of the cables slipped through the clamps holding it, throwing the entire weight of the structure on the remaining cable, which in turn slipped about 20 feet on the opposite end of the bridge, where it was caught by its clamps and supported the wreckage of the structure. The floor stringers had not yet been nailed to the beams and together with the men working on them slid off into the river bed. The failure occurred suddenly, and without any warning whatever.

It is the opinion of the engineers, both in and out of the bureau, who have carefully investigated the matter, that the cause of the

accident can be attributed to the clamps used, which it is thought were unsuitable for the cable, due to no fault on the part of the bureau of public works. No essential faults of erection were developed, but, as stated, the final determination of the question had not yet been reached at the end of the period covered by this report.

The actual cost of all work on the Benguet Road during the fiscal year 1912, including the cost of repairing the damages above mentioned, was ₱253,000. This does not compare unfavorably with the cost of maintenance for previous years, the lowest of which was 1908, when it cost ₱164,363, and the highest 1910, when it cost ₱358,685. All of these figures include an 8 per cent surcharge paid to the bureau itself to cover general administrative expenses. The average annual cost of maintenance during the past five or six years has been ₱240,000, which includes the 8 per cent surcharge mentioned above.

Benguet Automobile Line.—The auto line from July 1, 1911, to June 30, 1912, carried more than 19,000 passengers without injury or accident to any of them. A block system something similar to that established on railways is carefully maintained, the automobiles being run in trains and a regular speed schedule adhered to. Freight was carried to the amount of 5,161 tons of 2,000 pounds each. In addition to its other automobile equipment, the line operates 17 motor trucks, all constructed especially for service on the Benguet Road. They have given splendid service as passenger carriers, but are inadequate in capacity for freight, owing to the fact that at the time they were ordered the weight limit of the bridges on the road was two tons less than it is at present. The purchase of heavier motor trucks for freight service is therefore contemplated. Total receipts of the line were ₱221,000, and total expenses ₱219,000. The latter figure includes a contribution of 8 per cent to the bureau itself to pay for the general administrative expenses of the main organization.

MANILA GENERAL OFFICE.

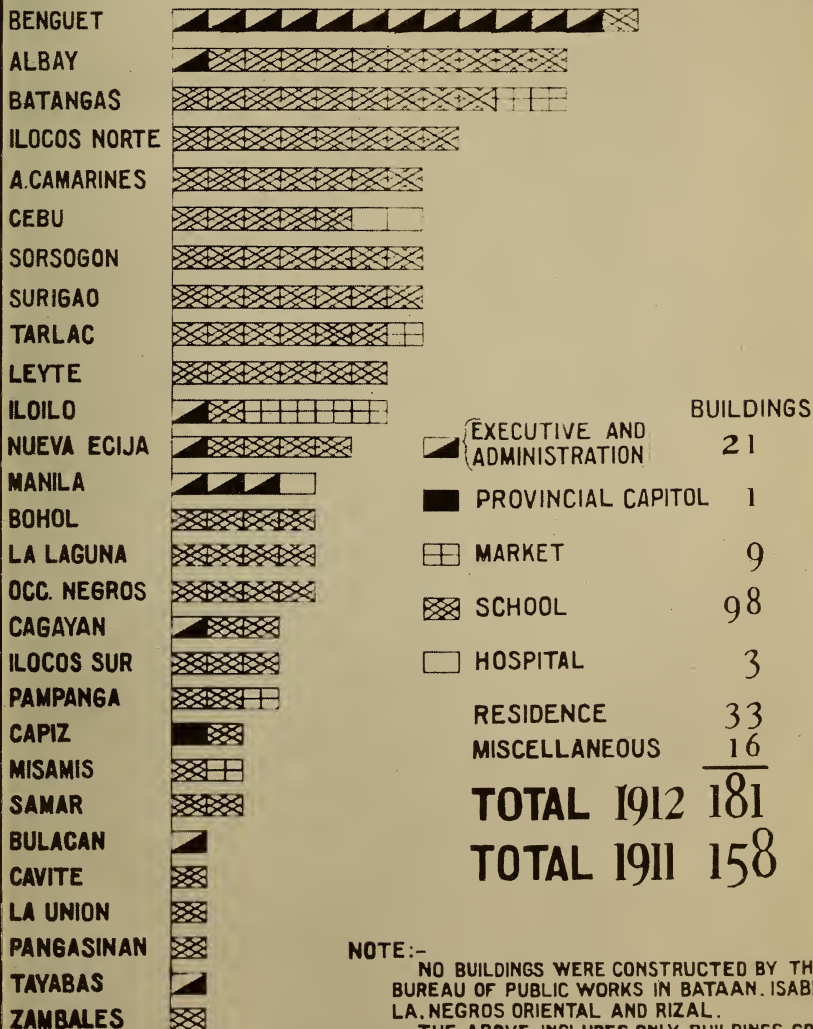
Division of engineering design.—This division has general charge of the designing work of the bureau, with the exception of architectural designing, which is under the consulting architect, and irrigation designing, which is under the chief irrigation engineer. The structural and engineering features of building designing were taken over by it only on June 8, 1912, when an arrangement which had existed since February, 1910, whereby the consulting architect assumed the entire responsibility for the engineering details of building work, which had proved unsatisfactory, was terminated.

Sixty-six road structures, aggregating 2,378 meters span, not included in any of the bureau's standard plans, were designed at an approximate cost, including plans, specifications, estimates, and blue prints, of ₱2.59 per ₱100 of construction cost. The bridges and culverts completed during the year according to the plans drawn by this division aggregated 1,700.06 meters span, and cost about ₱1,040,000. The total expense of the division for the year was ₱54,150.31.

Division of building maintenance, alteration, and repair.—This division, which at one time was one of the most troublesome in the bureau, owing to the fact that in a large percentage of its projects the cost overran the estimates and thus caused much annoying

BUILDINGS COMPLETED

FISCAL YEAR ENDING JUNE 30, 1912.

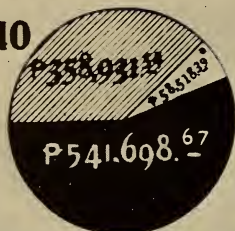


NOTE:-

NO BUILDINGS WERE CONSTRUCTED BY THE BUREAU OF PUBLIC WORKS IN BATAAN, ISABELA, NEGROS ORIENTAL AND RIZAL.

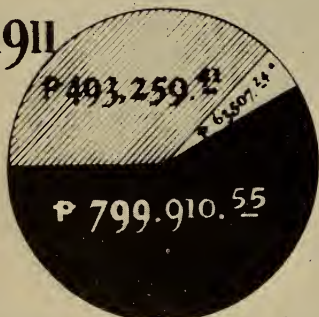
THE ABOVE INCLUDES ONLY BUILDINGS COMPLETED DURING THE YEAR.

1910



TOTAL P 959,148.⁶⁰

1911



TOTAL P 1,356,677.²⁰

1912






TOTAL P 1,574,509.²⁸

THE BUREAU WORTH

JUNE 30

1910 - 1911 - 1912

-KEY-

- CASH ACCOUNT BALANCE ... 
- PERMANENT IMPROVEMENTS * 
- EQUIPMENT..... 

* INCLUDES P 896.⁰⁸ REAL ESTATE

correspondence with the bureaus for which the work was executed, was reorganized shortly before the beginning of the fiscal year 1912. Since the change former conditions have almost entirely disappeared, and work is being done economically, within the funds available, and generally to the satisfaction of those for whom it is done. Expenditures from insular funds for maintenance, alteration and repair of public buildings during the fiscal year, aggregated ₱162,-289.54. The cost of the division was ₱34,415.17.

Division of building construction.—This is a new division, organized only in June, 1912, as a result of the taking over from the consulting architect of the actual construction of buildings architecturally designed by his office. The construction of all buildings erected by the insular government in Manila will be carried on by it.

Statistical division.—The statistical division has proved a valuable adjunct to the bureau through its compilation and analyzation of the enormous mass of information received in the central office from the various fields of activity and in placing the essential portions of this information in concise and graphic form before the chiefs of the bureau for their guidance. The charts which are printed as a part of this report represent but a small percentage of those prepared in the statistical division, but will serve to indicate the class of work performed by it. Material and cost charts are drawn for the information of the men within the bureau, who carry the different classes of expenditure into minute detail.

Accounting division.—We do not feel that full efficiency is yet being obtained from this important division of the bureau, although conditions are greatly improved. Adequate provision was not made in this and the property division for the great expansion which took place in the work of the bureau in 1908 through the sudden making available of large appropriations for public works, and the confusion which commenced then has not been entirely cleared up. On November 18, 1908, the director of public works requested that the insular auditor step in and straighten matters out, and by executive direction from that date until December 1910, the accounting division was in direct charge of the auditor, with but little improvement. Since the beginning of 1911 the bureau has been doing its best to straighten out its own accounting affairs, and this division is unquestionably conducting its work in a more businesslike manner than ever before, although it is believed the system followed is not the one best suited to the needs of the bureau. During the fiscal year 1912 the insular auditor has rendered much assistance to the bureau in reference to its accounting difficulties, and the installation of a new system is only possible through the medium of his office, as the men in direct charge of the accounting division of the bureau are too closely pressed by current work to be able to devote time and study to such a matter.

A noticeable improvement is the time within which bureau bills are rendered. Formerly bills for completed work were not submitted until months after the services had been performed, but at present in almost all cases they can be prepared and presented within 30 days.

The substitution of fixed surcharges for the old proration of general expenses mentioned in our last annual report has simplified the work of the accounting division and contributed to the more prompt rendition of vouchers.

The total expenditure supervised by the bureau during the fiscal year 1912 was ₱9,720,441.83, as compared with ₱9,793,119.59 during the previous year.

Property division.—The work of this division has been in a worse condition than that of the accounting division for some years, owing to unsystematic methods in the handling of property and in keeping the accounts thereof, and inefficient employees. The insular auditor was called upon in 1908 to correct this condition at the same time that he took over the accounting division, but up to the beginning of the fiscal year 1911 the status of the property of the bureau had not yet been determined. The bureau itself undertook during the greater part of the fiscal year 1911 to improve conditions by its own efforts, expended a large amount of money in the employment of additional force, and in May, 1911, submitted an inventory to the auditor's office which showed an apparent shortage of ₱157,000. In November, 1911, the insular auditor undertook to make an exhaustive examination into the property affairs of the bureau, at the same time installing a proper system on a substantial and correct basis. Gradually since that time order has been evolved out of chaos, and innumerable faults of administration and of system have been promptly rectified. The shortage noted above, which had been due to confusion in the records, loss of issue slips, natural shrinkage and wastage, preventable waste, unsystematic methods, and probably to some pilfering, and which had extended over a period of years, was reduced through a physical check of property and careful investigation of old transactions to about ₱85,000, and is still being reduced by the location of old errors as the work progresses. The investigation was still in progress at the close of the year, but the property affairs of the bureau are in a much more satisfactory condition than they have been for some time, and a satisfactory basis of operation has been established under the efficient direction of the auditor.

Library.—The accumulation of maps, plans, specifications, technical books, and catalogues in the bureau has become so great that a carefully systematized method of filing is necessary and is in operation under the direction of a competent librarian of considerable experience in the United States. All of the various articles finding their way to this division are carefully indexed and classified, and the 30,000 maps, plans, and specifications belonging to the bureau are accessible at a moment's notice to anyone desiring to use them.

Record division.—This division handled 85,000 communications during the fiscal year 1912, as compared with 60,000 during 1911.

Automobile division.—To carry out the provisions of Act No. 2159, passed by the Legislature on February 6, 1912, this new division has been recently created at Manila. The act provides in considerable detail for the regulation of motor vehicle traffic in the Philippine Islands, and for the registration of motor vehicles and the examination and licensing of drivers by the bureau of public works.

SPECIAL PROJECTS.

Osmena waterworks.—One of the most important of the special projects executed during the year was the water-supply system for the city of Cebu, which has been named in honor of the speaker of the Philippine Assembly. Construction was commenced on February 17,

1911, and finished February 19, 1912, for less than the estimated cost. The time set for completion had been 12 months and the amount appropriated for the project ₱555,000. It actually cost ₱526,000.

Its storage reservoir has a capacity of 333,000,000 gallons and its distributing reservoir a capacity of 4,000,000 gallons. The main pipe system is 5½ kilometers long, and the total length of pipe in the distributing system within the city is 21 kilometers.

Calumpit Bridge.—The first of a type of highway bridges which will probably be found economical on some of the larger rivers of the islands spanned by lines of railroad has been under construction at Calumpit, Bulacan. It is a combination railroad and highway bridge erected under contract by the Manila Railroad Co., the cost of the highway feature being borne by the Government. The Rio Grande de Pampanga is one of the large rivers of Luzon, and the cost of an ordinary highway bridge of permanent materials to span it would have been prohibitive for a number of years to come. The foundations of the combination structure were built to carry a double line of track and support the highway portions on steel brackets on either side of the railroad portion. A satisfactory permanent highway and another connection for the Manila-North road is thus secured over a river 350 feet wide at the bridge site for about ₱100,000, the amount allotted from road and bridge funds by the undersigned for the cost of the roadway part of the bridge and the approaches thereto on both sides having been ₱110,000.

General results.

	Fiscal year 1911.	Fiscal year 1912.
Concrete placed.....cubic meters.....	39,551	41,187
Cement used.....barrels.....	73,117	71,020
Reinforcing and structural steel used.....kilos.....	1,986,600	2,571,000
Piling used.....linear meters.....	59,400	33,200
Dressed lumber used.....M feet b. m.....	4,100	7,250
Average number of laborers employed per day.....	15,566	13,957
Average number of bull carts employed per day.....	481	580
Average number of teams employed per day.....	110	90
Number of buildings constructed.....	158	181
Cubical contents of buildings constructed.....	206,368	255,640
Total amount expended on building work.....	₱2,923,351.32	₱2,657,601.33
Number of successful artesian wells in the islands.....	538	686
Total expenditure for artesian wells.....	₱337,387.67	₱377,903.99
Total expenditure on roads and bridges.....	₱4,551,733.03	₱4,546,708.14

BUREAU OF NAVIGATION.

PERSONNEL.

Mr. J. S. Reis, who had been with the bureau as assistant director since June 15, 1909, and who had also during this time performed the duties of marine superintendent and superintendent of inter-island transportation, resigned on February 29, 1912, to accept an important position outside the Government service. The vacancy thus created has not yet been filled.

Capt. P. W. Huntington, Medical Corps, United States Army, was relieved as medical inspector for the bureau of navigation by the detail of Capt. R. L. Carswell, Medical Corps, United States Army, on January 15, 1912.

On June 30, 1912, there were 1,449 officers and employees in the service, a reduction of 619 during the year. For various reasons the total force has been cut in the course of the last two fiscal years from 2,619 to its present figure.

Of the number employed on June 30, 1912, 117 were Americans, 1,284 Filipinos, 35 Chinese, and 3 of other nationalities.

DIVISION OF COAST GUARD AND TRANSPORTATION.

Operation of fleet.—At the beginning of the fiscal year, as stated in our last annual report, this division controlled the operations of a fleet of 41 vessels. It soon became apparent that at the rate of expenditure during the first three months of the year the bureau would use all of its appropriation (exactly the same amount having been provided as for the previous three years) long before June 30, 1912, and find itself unable to continue operations. To avoid this contingency, six coast guard cutters and two seagoing launches were, on October 25, 1911, ordered to be placed out of commission on November 1, 1911, thus materially reducing the cost of operation and maintenance for the remainder of the year. At the same time, as the probability of securing a larger appropriation for the bureau seemed remote, and we could not afford to allow these vessels to deteriorate on our hands, the information was passed out that any one or all of them were for sale. One of the cutters was sold to the Government of British North Borneo and sailed for Sandakan in May, 1912. In addition, two seagoing launches, a harbor launch, a ketch, and two sailing sloops were disposed of.

Additions to the fleet consisted of a combination dredge, pile driver and snag boat, and two harbor launches. The snag boat was entirely constructed at the bureau shops and sailed for Aparri under her own steam in April, 1912. Her operations will be confined to the Cagayan River in northern Luzon.

Two cutters were loaned to and operated by the bureau of coast and geodetic survey; one was chartered to and operated during the entire year by the United States Army, and another was under charter to the Army until March 8, 1912, when the charter was terminated and the vessel placed out of commission.

The cableship *Rizal* maintained the submarine cables of the government in the Archipelago in a better state of serviceability than has been the case for several years. She made two trips to Hongkong for docking and repairs, and during periods when the cables required no attention she has carried several cargoes of coal and lumber, thus reducing the cost of her operation to the government.

The total number of vessels in the division on June 30, 1912, was 37, being 4 less than at the same date of the previous year. These consisted of the cableship, 14 cutters, 4 seagoing launches, 2 auxiliary ketches, 15 harbor and river launches, and a combination stern-wheel dredge and snag boat, all valued at ₱2,223,407.36.

The number of vessels in operation on June 30, 1912, was but 28, consisting of the cableship, 7 cutters, 3 seagoing launches, 2 auxiliary ketches, 14 harbor and river launches, and the snag boat.

The gross cost of operation of the fleet was ₱1,003,873.01, from which the receipts for charters, transportation of passengers and freight, etc., ₱386,978.36, should be deducted, leaving a net charge against bureau funds of ₱616,894.65.

Enlisted men.—In the latter part of June the terms of enlistment of a number of seamen and other subordinate fleet employees expired, and only about 30 per cent of those discharged reenlisted. These are the first reenlistments under Act No. 1980, but it is hoped the percentage is not indicative of what we may expect in the future.

Medical service.—In the dispensary at bureau headquarters, Manila, 2,611 minor operations and dressings and 1,321 vaccinations were performed, and hundreds of examinations made and doses of medicines administered.

There were 2,677 days lost from duty on account of sickness and injury.

One officer was accidentally killed on board his vessel while cleaning the Gatling gun.

There were 6 cases of smallpox, 5 of varioloid, 2 of measles, and 17 of beriberi among enlisted men and light keepers.

Commercial contract vessels and the bureau fleet have been regularly inspected and a high standard of sanitation maintained.

Offenses against the service.—There were 105 trials by summary court, 53 of which resulted in fines aggregating ₱1,462.83, which has been credited to the pension fund, 1 reduction in grade, 9 imprisonment, 2 fine and reduction in grade, 21 fine and imprisonment, 1 imprisonment and dishonorable discharge, 5 fine, reduction in grade, and imprisonment, 2 fine and dishonorable discharge, 2 reduction in grade and imprisonment, and 9 acquittals.

Eight commissioned officers were punished by suspension without pay and fined for violation of regulations, and one officer was reduced in rank for misconduct.

MARINE RAILWAY AND REPAIR SHOP.

This division is, in accordance with the provisions of Act No. 1416, operated on a reimbursable basis. Its accounts are kept separate from those of the other divisions of the bureau and no appropriation of public funds is made for its support. It is authorized in the act above mentioned to perform services for insular bureaus, provincial and municipal governments, and other parties under certain restrictions, on the basis of cost plus a surcharge of 10 per cent.

During the year the plant was improved by the erection of a new concrete power house, in which were installed two new boilers of 200 horsepower each, a new condensing plant, and an air compressor, the latter of which distributes power for the operation of hammers, drills, yard derricks, lifting hoists, and the marine railway when docking small craft.

A new 100-ton marine railway was completed with the exception of the hoisting gear, not enough funds being available for the latter.

Work performed included the construction of a 30-foot high-speed motor boat, steel towers for light stations, manufacture of lighthouse apparatus, casting of propellers, anchors for buoys, engine and

dredge parts, etc. A 50-foot motor towboat is under construction for the bureau of prisons. With the approval of the undersigned, work has been executed for the United States Army, and in a few instances for parties not connected with the government service.

At the beginning of the year there was a balance to the credit of the marine railway and repair shop of.....	₱53,451.37
Receipts from operations were.....	764,029.57
	<hr/>
Making the total available.....	817,480.94
Of this there were expended for new equipment and permanent shop improvements.....	₱111,065.87
In maintenance.....	47,161.09
And in operation.....	631,299.12
	<hr/>
	789,526.08
Leaving unexpended on June 30, 1912.....	27,954.86

INTERISLAND TRANSPORTATION OFFICE.

On July 26, 1911, the contracts entered into with interisland steamship companies for the more satisfactory carrying of mail, passengers, and freight expired, and no appropriation having been made by the Legislature for payment of subsidies after that date, we faced the possibility of a return of the interisland shipping service to the conditions which existed prior to the execution of contracts making possible more effective government control.

A subsidy bill had been introduced at the previous session of the Legislature, but had failed of passage, and there was no assurance that better success would be had during the session of 1911-12. However, the steamship companies were approached on the subject, and as a temporary measure contracts were made between them and the undersigned in which they agreed to be bound by the terms of the old contracts, except as to penalization by money fines, until October 26, 1911, the undersigned agreeing to endeavor to secure passage of an appropriation to continue subsidy contracts for a term of years which would be retroactive in effect to cover the period from July 26, 1911. In October, the Legislature having still failed to act favorably on the bill presented, the arrangement was by mutual consent extended to March 26, 1912.

On February 1, 1912, an act was passed by the Legislature making a continuing annual appropriation of ₱200,000 for contract steamship service from July 26, 1911, to July 26, 1914.

Routes were immediately rearranged to conform with existing requirements and advertisements were placed for bids for the new service, as a result of which contracts have been entered into with five shipping companies for services over nine routes and providing for an annual subsidy of ₱123,544, which is more than ₱100,000 per annum less than the payments on the old basis.

Five bureau secondary routes were discontinued and the vessels laid up, as previously stated, owing to lack of funds for their operation, leaving but two secondary routes in operation at present.

DIVISION OF PORT WORKS AND LIGHTHOUSE CONSTRUCTION.

By Act No. 2059, passed on February 3, 1911, ₱500,000 was appropriated for the improvement of ports, dredging of navigable rivers and canals, and other similar specified purposes, allotable in

the discretion of the undersigned. From this appropriation allotments have been made during the fiscal year 1912 as follows:

For the improvement of the port of Manila by the construction of roadways and drains in the port district.....	P 87, 892. 54
For the completion of the river wall at Iloilo.....	60, 000. 00
For dredging in Manila Harbor.....	150, 000. 00
For building 2 small steel dumping scows.....	15, 000. 00
For repairs to Manila breakwaters.....	10, 469. 99
For completing harbor improvements at Bais, Oriental Negros.....	17, 000. 00
For building a small wharf at Larena, Siquijor Island.....	4, 000. 00
To complete construction of the Cagayan River snag boat.....	32, 637. 47
For dredging in Manila esteros.....	26, 000. 00
	<hr/> 403, 000. 00

Manila dredging.—Special attention has been given to the dredging of the old esteros of the city of Manila to make them navigable for small craft and to improve sanitation. Two hundred and sixty per cent more work of this nature has been done during the fiscal year 1912 than during the previous fiscal year, and we now have 5,300 lineal meters (3.3 miles) of esteros navigable at low tide by loaded cascos, and an additional 1,600 lineal meters navigable at mean tide, a total of 63 per cent of the 10,980 lineal meters which have been selected for improvement for navigation. The actual number of cubic meters of material removed was 128,118, representing an increase of 50 per cent over the amount dredged from Manila esteros in all the previous years of American occupation combined. Some of this material has been deposited on low lands in the vicinity of the work, but in most cases it must be towed out to sea and dumped because of our inability to prevail upon anyone to take delivery of it from the most convenient delivery points as a gift for filling purposes.

The channel of the lower Pasig River was maintained at a depth of 18 feet, there having been an increase of 21 per cent in the amount of material removed from this portion of the river and the outer bar.

In the outer harbor, due to the fact that the only dredge in the service which will reach to the depth required was held up for repairs nearly five months and was absent at Iloilo an additional two and one-half months, there was a decrease of 36 per cent in the amount of material moved.

On December 11, 1911, the undersigned allotted P 150,000 for dredging to continue the deep-water area in the outer harbor southward, with a proviso that the material removed should be deposited behind the Cavite boulevard retaining wall. Bids were advertised for and a contract for the work signed and approved on May 3, 1912. Operations had not yet been started at the end of the fiscal year and probably will not be until after the typhoon season.

The work fell off 60 per cent in the upper reaches of the Pasig River because of the withdrawal of one dredge for estero work, and the extremely poor condition of repair of the one left there, no funds being available for the construction of a new steel hull to replace the present worn-out wooden structure.

Heavy repairs will be required on the dredges and other floating plant next year if they are to continue in service.

Manila port district.—It is provided by law that the streets on land reclaimed by the insular government shall be constructed by

the insular government, and maintained by the municipality in which they are located. In accordance with this law there has been allotted during the last two fiscal years from port works funds for the construction of streets, curbing, and storm-water drains in the port district, city of Manila, a total of ₱126,892.54, practically all of which has been expended. As a result, the street system in our new shipping district is beginning to take definite form. It is to date sufficient for the needs of the three large piers and the completed structures in the district, but at the rate the blocks are being leased it will soon be necessary to materially extend the system.

A force of men has been employed continually on repairs, alterations, and improvements at steel Piers 3 and 5, the maintenance cost of which is taken out of the receipts from their operation.

The division exercises a general supervision over the construction by private capital of a plant abutting on the inner basin, for general marine construction and repair work. This plant will include a marine railway capable of docking vessels of 3,000 tons displacement, two smaller railways for launches and smaller craft, machine shops, and a foundry. Construction was started in February, 1912. At the close of the fiscal year the large marine railway was approximately 50 per cent and the machine-shop buildings 25 per cent completed. No work had been done on the smaller railways. This plant will be able to handle any interisland boat and many of the foreign vessels calling at Manila, and if able to compete with Hong-kong yards for extensive repairs should be the means of keeping in the islands large sums of money now expended abroad.

Cavite Boulevard.—No additional funds were provided for work on the Cavite Boulevard, and the contractors have only worked intermittently on repairs to the wall. No extension in length was made. Of the total funds so far provided, there remained unexpended on June 30, 1912, ₱47 336.94, most of which it is estimated will be required to put the wall in good condition, including the crushed stone backing in preparation for the back fill, after the typhoon season.

Manila breakwaters.—The work on the south breakwater, which was reported under way in our last annual report, was completed in October, 1911, and the superstructure wall on the west breakwater has been brought up to grade. The breakwaters are now in very good condition throughout their entire length, and no extensive repairs should be necessary for several years. The severe typhoons of July 14 to 17, 1911, did practically no damage to them.

Pasig River walls.—The back filling behind the two new sections of wall constructed on the south bank of the river last year was completed in September, 1911, and repairs to the old Spanish wall have been made at various points in the lower river. They are now in fairly good condition and should require no extensive repairs for at least a year.

Iloilo Harbor improvements.—The extension of the reinforced concrete wharf on the south side of the Iloilo River was continued by administration throughout the 12 months. At the close of the year 346 linear meters of wharf had been completed and 51 meters partially constructed, the whole equivalent to about 365 linear meters of completed wharf, the cost to date approximating ₱515 per linear meter. It is estimated that the entire 638.5 meters of improvement contemplated, 241.5 meters of retaining wall and 397 meters of wharf, will cost less than ₱400,000. So much benefit has been derived

from and so much handling expense saved through the wall and wharf constructed that a petition to extend the work to the upper reaches of the river, signed by practically all the shippers in that district, has been received. If funds become available, such an extension would be of great value.

Dredge No. 1 was dispatched from Manila to clear out the bed of the lower river, which had silted up considerably. Owing to the urgent need of this dredge at Manila, time was taken to clear only a comparatively narrow channel from the bar by the removal of 90,280 cubic meters of material, and redredging will probably be necessary in the near future.

Cebu Harbor improvements.—On August 10, 1911, a contract was entered into with a construction company for the building of 250 linear meters of plain and reenforced concrete wharf as an extension to the existing sea wall at Cebu. The contractor's plant was assembled on the ground about the last of September, and active work commenced during October. At the close of the year the work was progressing satisfactorily, four large standard piers and one small pier having been completed and the foundation driven for a fifth large pier. This wharf will accommodate vessels of 30 feet draft.

Bais Harbor improvements.—The improvements at the port of Bais, Oriental Negros, which will serve a large sugar-producing section, described in our previous report, were completed about May 1, 1912. The cost of the work, ₱67,000, considerably exceeded the first allotment on account of the elaboration of the scheme after the project was under way.

Pandan Harbor improvements.—Nine hundred linear meters of the right bank of the Abra River at Pandan, the port for Vigan, Ilocos Sur, were revetted as a protection against erosion at an approximate cost of ₱31,800 allotted by the undersigned. The revetment placed aggregated 5,740 square meters, some 10,000 cubic meters of stone delivered on the site of the work having been used therein. Five thousand five hundred cubic meters of sand and gravel back fill were used in indentations in order to secure proper alignment.

Cagayan River improvements.—The combination snag boat, dredge, and pile driver built by the bureau of navigation to maintain the channel of the Cagayan River and protect its banks reached Aparri on April 18, 1912. The river being subject to terrific floods, when all craft must seek shelter, the first project completed was the creation of a harbor of refuge for the snag boat herself and other craft. This was practically all that had been accomplished to the end of the year.

Lighthouse construction.—On account of the limited funds available for lighthouse permanent improvements, comparatively little has been accomplished on new work. Three reenforced concrete keepers' dwellings, which were under construction at the time of our preceding report, were completed; three reenforced concrete post-light beacons were established; two temporary structures consisting of wooden posts surmounted by platforms with plain box pedestals for the lamps were erected; two new standard 15-meter steel towers were placed at Ungay Point and Lucena; and minor improvements and repairs were made at 24 light stations. A standard channel beacon was built at Gubat, Sorsogon, the seven channel beacons at Cebu were completed, and five more of the same type were built at Bais, Oriental Negros, to mark the channel leading to the new wharf.

Preliminary surveys and investigations at seven places and four surveys for lighthouse reservations were made.

A fairly pretentious program of lighthouse construction and improvement is under consideration for the fiscal year 1913.

LIGHTHOUSE MAINTENANCE DIVISION.

There were in operation in the Philippine Islands on June 30, 1912, 145 lights, 65 beacons, and 105 buoys; 4 lights having been established and 1 discontinued; 10 beacons erected and 1 discontinued; and 2 buoys placed and 9 discontinued since our last report. These aids to navigation are maintained and operated by a force entirely Filipino, consisting of 177 keepers and assistants, 22 apprentices, and 82 boatmen.

The inspection and proper supervision of this service, distributed over a large area, being entirely too great a task for one official, the islands were, in July, 1911, divided into two lighthouse districts, the first district comprising all aids to navigation north of the 12th parallel of latitude, and the second district all south. Two lighthouse inspectors have been appointed and two cutters designated as lighthouse tenders. As a result stations are inspected more frequently and with greater regularity, and there has been an increase in the efficiency of the service and an improvement in the discipline of the men.

No funds having been made available for the purpose, no steps were taken to replace any of the smaller lights with acetylene gas beacons as had been contemplated. We hope, however, to establish several such beacons during the ensuing fiscal year. All repairs to apparatus have been made at the bureau shops.

It is believed that it may be stated without fear of contradiction that the lighthouse system in the Philippine Islands now compares favorably with that in any part of the world.

BUREAU OF POSTS.

PERSONNEL.

The administrative personnel of the bureau continued practically without change during the year. On June 30, 1912, the total number of officers and employees was 2,345, an increase of 160. Of this number 71 Americans and 214 Filipinos were in the classified civil service and 124 Americans and 1,936 Filipinos were unclassified.

The following statement of the number of American and Filipino officers and employees, exclusive of mail carriers and contractors at the close of each of the last 10 fiscal years, is presented to show the increase in the relative number of Filipinos employed:

June 30—	Americans.	Filipinos.	Total.
1903.....	234	138	372
1904.....	197	380	577
1905.....	156	456	612
1906.....	223	780	1,003
1907.....	210	881	1,091
1908.....	237	1,128	1,365
1909.....	201	1,166	1,367
1910.....	191	1,380	1,571
1911.....	194	1,704	1,898
1912.....	190	1,858	2,048

POSTAL DIVISION.

Post offices.—There were at the beginning of the fiscal year 572 post offices in the Philippine Islands. Seventeen new post offices were established and 2 were discontinued, making a net gain of 15 offices, or a total of 587 on June 30, 1912.

Free delivery service.—Free delivery letter carrier service was established at 101 additional post offices outside the city of Manila, making a total of 397 offices at which such service is in operation. The cost of this service was ₱67,091.48, an increase of ₱26,952.26 over the previous year.

Letter carriers in the city of Manila delivered 2,058,561 pieces of mail, and collected 1,793,718 from street letter boxes, increases of 16 and 17.2 per cent, respectively. Special messengers delivered 10,797 articles bearing special-delivery stamps.

Second-class publications.—Thirteen new publications were admitted to the mails as second-class matter, and six discontinued, leaving a total of 77 publications entitled to the second-class mail privilege on June 30, 1912.

The amount of second-class postage paid was ₱13,751.36, an increase of 17 per cent.

Registered mail handled.—The following is a summary of the registered mail handled:

Items.	Fiscal year.		Increase.
	1911	1912	
Number of—			<i>Per cent.</i>
Pieces of mail registered at Philippine offices.....	510,085	535,137	4.9
Pieces received from the United States.....	57,729	67,151	16.3
Pieces received from foreign countries.....	67,071	74,124	15.6
Pieces sent to United States.....	66,671	73,728	10.5
Pieces sent to foreign countries.....	49,080	50,284	2.4
Pieces sent from one Philippine office to another Philippine office....	394,334	411,125	4.2
Pieces handled by the Manila post office	577,350	633,910	9.7

Exchange of mails with the United States.—

Items.	Fiscal year—		Increase.
	1911	1912	
Number of—			
Arrivals from the United States.....	74	86	12
Pouches letters received from the United States.....	898	925	27
Pouches registers received from the United States....	4,386	4,375	¹ 11
Sacks papers and merchandise received from the United States.....	19,999	19,449	¹ 550
Philippine mails arrived in the United States.....	64	69	5
Pouches letters sent to the United States.....	1,014	1,152	138
Pouches registers sent to the United States.....	1,787	2,076	289
Sacks papers and merchandise sent to the United States.....	3,016	3,108	92
Bags sent to United States ships and transports in foreign countries..	870	1,455	585
Bags received from United States ships and transports in foreign countries.....	391	573	182

¹ Decrease.

Dead-letter office.—The 78,453 articles received in the dead letter office at Manila were disposed of as follows:

Returned to the United States.....	15, 105
Returned to foreign countries.....	4, 838
Request matter returned to senders in the Philippines.....	3, 836
Opened and returned to senders.....	29, 981
Containing valuables returned to senders.....	249
Destroyed.....	24, 003
Filed, containing valuables.....	441
Total.....	78, 453

At the close of the year there were on file in the dead-letter office 366 registered articles and 34 letters containing money, drafts, or stamps, and 1,029 letters and packages containing other valuables.

Advertised mail.—During the 12 months there were 28,826 pieces of mail advertised at the Manila post office, of which 2,895 were subsequently delivered.

Cost of mail transportation.—Due to extensions of service on new lines of the Manila Railroad Co., and new rates of pay effective July 1, 1911, there was an increase of ₱20,857.52 in the cost of transportation of mails on railroads.

An increase of ₱12,073.80 in the cost of other transportation between post offices was caused by the increased frequency of service on many routes and by improved methods of transportation such as the employment of automobile service in place of slower vehicles.

The transportation of Philippine mails to and through foreign countries cost ₱22,916.79 more than for the previous fiscal year, ₱21,529.12 of which represents the cost of transportation by way of the Trans-Siberian Railway for two years, the cost of this service for the fiscal year 1911 not having been reported from the central office of the Postal Union in time to be taken into the accounts for that year.

MONEY-ORDER DIVISION.

Extension of service.—Money-order service was established at 46 additional post offices and closed at 2 on account of the discontinuance of the post offices, leaving a total of 253 money-order offices in the Philippine Islands on June 30, 1912.

Orders issued and paid.—A brief tabulation of the business handled, as compared with the fiscal year 1911, follows:

Items.	Fiscal year—	
	1911	1912
Orders issued payable in the Philippines.....	₱8, 704, 244. 71	₱11, 184, 401. 70
Deposits of money-order funds received at Manila from Provincial offices..	7, 496, 226. 44	9, 302, 866. 84
Orders issued payable in the United States.....	3, 437, 020. 16	3, 529, 216. 04
Orders issued for payment in other countries.....	124, 501. 28	136, 729. 66
Orders of the United States and other countries paid in the Philippines..	418, 135. 32	429, 078. 94
Philippine orders paid in the United States and other countries.....	3, 489, 917. 78	3, 613, 435. 28

Telegraphic transfers.—Telegraphic transfers of money to the number of 8,335 were made by means of the money-order service, amounting to ₱2,256,458.38, for which ₱7,897.17 in money-order

fees, and ₱8,646.76 for cost of telegrams, was collected. These amounts, exclusive of cost of telegrams, are included in the money orders issued and paid in the Philippine Islands, in the paragraph preceding.

Business with Hongkong.—Pursuant to an agreement between the two administrations, a direct money-order service was established with the English colony of Hongkong on July 1, 1911. Because of the balance of business in favor of Hongkong, and the exchange transactions involved in settlements, this has not in its first year of operation been particularly profitable to the Philippine Islands. Three hundred and three orders were issued in the Philippine Islands payable in Hongkong, representing ₱15,028.86 Philippine currency, and but 81 orders were issued in Hongkong payable in the Philippine Islands, totaling ₱1,863.78, the percentage thus being 78.9 per cent of the orders and 89 per cent of the money involved payable in Hongkong.

General.—The total number of orders issued increased 20.7 per cent to 231,360, the value of which was ₱14,850,347.40, an increase of 21.1 per cent.

The total amount of money sent out of the islands by means of money orders was ₱3,665,945.70, as compared with ₱429,078.94, the amount paid here on orders issued in the United States and foreign countries.

TELEGRAPH DIVISION.

Telegrams handled.—The number of telegrams handled during the 12 months was 657,404, on which charges to the amount of ₱473,358.08 were collected, an increase of 151,102 telegrams and ₱105,339.38, respectively, over the previous year. Commercial telegraph business increased 34.6 per cent and government business 18.6 per cent.

Transmission lines and offices.—There were constructed 374 kilometers and 2 hectometers of new telegraph line, and 162.8 kilometers of old line were rebuilt. New cable to the extent of 199.753 kilometers was laid, and 321.167 kilometers of old cable were recovered.

The total kilometerage of telegraph and cable lines on June 30, 1912, was 9,010.84, and the number of telegraph offices on the same date was 267, 37 new offices having been opened and 8 offices closed during the 12 months.

Wireless stations.—A Telefunken wireless station was erected at Davao, Moro Province, at the joint expense of the bureau of posts and the province, and opened for business on March 6, 1912. In June construction work was commenced on wireless stations at Cuyo and Puerto Princesa, Palawan.

The bureau on June 30, 1912, operated wireless stations at 4 points, Davao, Jolo, Malabang, and Zamboanga—all in the Moro Province.

Improvement of service.—During the fiscal year 1911, the bureau paid a commercial telegraph company ₱10,568.16 to handle its business during cable interruptions, but this year, due to the considerable improvement brought about by the rebuilding of land lines, extensive repairs to cables, and the replacing of old and worn-out cables with new, the amount paid on this account was but ₱40.

POSTAL SAVINGS BANK DIVISION.

The steady increase in business which has characterized this department of the bureau since its creation in 1906 continues, and the division is just about on a self-supporting basis. To date its net earnings have not been sufficient to meet the operating expenses, and it has been the practice at the end of each year to meet the deficit from the general funds of the insular treasury. This year the net deficit is but ₱6,973.02, and it is anticipated that another 12 months will see the division operating without outside assistance.

The business of the year is briefly summarized below:

	Fiscal year—	
	1911	1912
Number of bank offices at close of year:		
First class.....	26	39
Second class.....	270	267
Third class.....	118	131
Total.....	414	437
Depositors:		
New accounts opened.....	19,285	12,442
Accounts closed.....	3,583	5,444
Open accounts June 30.....	28,804	35,802
Increase over prior year.....	15,702	6,998
Deposit account:		
Number of deposits made.....	63,613	61,641
Number of withdrawals.....	22,004	29,064
Amount of deposits made.....	₱2,818,161.95	₱3,106,419.23
Average amount of each deposit.....	44.30	50.39
Amount of withdrawals.....	2,425,927.32	2,816,907.30
Average amount of each withdrawal.....	110.25	96.92
Net deposits at end of year.....	2,099,474.49	2,388,986.42
Average amount of each open account at close of year.....	72.89	66.73
Stamp account:		
Savings bank stamps—		
Redeemed.....	27,596.00	21,346.00
Sold.....	31,963.65	22,444.35
Outstanding.....	6,359.05	7,457.40
Income:		
Earnings for year collected during year.....	51,582.44	90,626.20
Accrued earnings uncollected at close of year.....	39,577.10	25,569.53
Expenditures:		
Operating expenses.....	78,961.32	81,523.71
Interest paid on closed accounts.....	5,815.03	7,528.23
Premiums paid on bonds purchased.....	2,000.00	.....
Accrued interest paid on bonds purchased.....	4,911.11	.....
Interest added to accounts at close of year as deposits.....	27,993.51	34,116.81
Net deficit.....	28,521.43	6,973.02

Classification of depositors.

	Open accounts June 30—	
	1911	1912
Nationality:		
Americans.....	4,382	4,720
Filipinos.....	23,161	29,555
Europeans.....	690	886
Asiatics.....	512	590
Societies.....	59	51
Total.....	28,804	35,802
Sex:		
Male.....	22,120	27,480
Female.....	6,625	8,271

Investments.

	June 30—	
	1911	1912
Time deposits in Manila banks at $3\frac{1}{2}$ per cent.....	P 380,000.00	P 560,000.00
4 per cent railway and municipal bonds.....	1,288,875.50	1,288,875.50
Real estate mortgages at 8 and 10 per cent.....	407,800.00	509,680.00
Total.....	2,076,675.50	2,358,555.50

The increase in the earnings of the bank was 27.5 per cent, while the increase in its expenses was but 3.2 per cent.

OFFENSES AGAINST THE SERVICE.

Investigations during the year by district inspectors resulted in the conviction of four postmasters and one operator for misappropriation of public funds; one clerk, one letter carrier, and two mail messengers for faithlessness in the custody of documents; and one clerk for forgery. Cases are pending in the courts against four postmasters for misappropriation of public funds; and one postmaster, one clerk, one letter carrier, and two mail messengers for faithlessness in the custody of documents. Twelve employees, other than those prosecuted, were dismissed for actions involving dishonesty, and eight were required to make reimbursement for losses made possible through their carelessness or failure to comply with the regulations.

HEADQUARTERS BUILDING AND POST OFFICE, MANILA.

The necessity for improved and enlarged quarters for the bureau of posts in the city of Manila is respectfully presented. During the last 12 years this question has been before the authorities at various times, but never has the situation been so acute as now.

The present structure, the Fortin Building, was occupied by the bureau on July 1, 1904, after it had been taken over from the military authorities and partially rebuilt to meet the then existing requirements. The building has never been more than a makeshift and a considerable annual expenditure has been necessary since the first outlay to hold it together. A gang of workmen has now been employed on it constantly since April, 1912, and the necessary work will probably not be finished for a number of weeks. The roof over a greater part of the building is in an unsatisfactory condition, leaks badly in a number of places, and will probably have to be renewed within a year. The supporting timbers under about half the floor are so badly rotted that it has broken through in several places. Expenditures for repairs from April to September, 1912, will probably amount to P20,000.

At present there are housed in this place the headquarters of the bureau, including the office of the director, his assistants and office force, the money-order division, postal savings bank division, telegraph division, supply division, including the storehouse, and the Manila post office. The business has grown so rapidly since 1904 that the building is far too small, and health conditions are not what they should be because of overcrowding. Its architecture is such that

sufficient natural light can seldom be obtained and it is necessary to use electric lights to some extent all day long every day.

From another point of view, the construction of a suitable post-office building in Manila would be a long step forward in aid of the publicity movement, both for the city and the islands as a whole. The appearance of the present structure, both outside and in, is so bad as to require no comment; and it is probably visited by every person who comes to the city on either business or pleasure. From it many unfortunate impressions are doubtless obtained.

It is believed that the appropriation of sufficient funds to construct and equip a suitable building for the Manila post office should not be longer delayed, and the question is respectfully presented for consideration.

FINANCES.

Revenues, exclusive of Postal Savings Bank.

	Fiscal year 1911.	Fiscal year 1912.
Postal division.....	P627,097.44	P698,813.10
Money-order division.....	70,604.70	82,437.24
Telegraph division.....	369,119.57	474,199.06
Total.....	1,066,821.71	1,255,449.40

Expenditures, exclusive of Postal Savings Bank.

	Fiscal year 1911.	Fiscal year 1912.
Plant and equipment.....	P268,660.82	P317,358.24
Administration.....	1,210,867.31	1,301,426.86
Maintenance.....	437,084.67	462,192.77
Supplies on hand June 30.....	16,499.74	64,391.10
Total.....	1,933,112.54	2,145,368.97

BUREAU OF COAST AND GEODETIC SURVEY.

The general plan in relation to the division of the expenses of this bureau between the Government of the United States and the government of the Philippine Islands, which has applied since January 1, 1901, was followed during the year.

PERSONNEL.

Practically no change has been made in the personnel of the bureau during the year. Capt. P. A. Welker was in charge of its operation during the entire period, with a field force, including assistants and aids, watch officers, mates, engineers, surgeons, recorders, petty officers, observers, seamen, firemen, tide observers, laundrymen, and messmen, of 258, and an office force of 47.

FIELD OPERATIONS.

Five steamers—the *Pathfinder*, *Fathomer*, *Romblon*, *Marinduque*, and *Research*—were in the field continuously, except during intervals when repairs were necessary. One shore party was engaged for nine

months in triangulation in Mindanao and another during a period of three months in making observations for the determination of the magnetic elements in various parts of the islands.

Triangulation.—The triangulation over the large water area bounded by Luzon, Burias, Masbate, Panay, and Tablas Islands, involving lines as much as 83 statute miles in length, has practically been completed, only a few additional observations for the purpose of increasing strength being necessary.

The triangulation across Mindanao Island connecting Iligan and Illana Bays, which was carried on under the protection of troops from the United States Army, the work being in a region inhabited by Moros not altogether peaceful, has been completed. The Military Information Division of the Army took this opportunity to combine forces with the Coast and Geodetic Survey for securing a topographical survey of the same region. The axial length of this triangulation is about 70 miles and the area covered approximately 1,000 square miles. The United States Army, in addition to affording military protection, furnished the wagons, pack trains, and launches for transportation and all the necessary working tools for clearing lines of sight and opening trails, thus materially decreasing the expense of the coast and geodetic survey and rendering signal assistance to the government of the Philippine Islands.

Both of the above projects were difficult to execute and involved much labor and expense, but the returns obtained are of great value, as the result is a complete chain of triangulation from the north coast of Luzon to the south coast of Mindanao, thus providing the means of accurately connecting and coordinating the surveys of the islands.

The triangulation connecting Mindoro and Panay and extending across the Cuyos to the Calamianes and Palawan, involving lines as much as 91 statute miles in length, has been well advanced, with the prospect that it will be completed early in the fiscal year 1913. This piece of work involves the longest lines that will be required for any surveys in the Philippine Islands, and its completion will result in the connection of the surveys in Palawan with those of the entire Archipelago.

Important and extensive triangulation was also executed in connection with the topographic and hydrographic surveys, on the east coast of Mindanao, from Caut Point to Lianga Bay; on the west coast of Negros from Binalbagan to Apo Island; and in the area bounded by Samar, Biliran, and Masbate Islands.

During the year 536 geographical positions were accurately determined by triangulation, all of which are available for any future surveys that may be required along the coasts where they are located, and also for other bureaus for the extension of cadastral and topographic surveys into the interior.

Topography.—Topographic surveys were executed on the east coast of Mindanao, west coast of Samar, east and north coasts of Biliran, Ragay Gulf, west coast of Masbate, west coast of Negros, Sibuyan and Romblon Islands, and a part of the Cuyo Islands. This work covered 1,316 miles of shore line, which was executed in detail and was extended into the interior to a distance sufficient to cover all requirements for navigation charts.

Hydrography.—Hydrographic surveys were made off the east coast of Mindanao, west coast of Negros, the sea north of Panay and between Masbate and Tablas Islands, west coast of Panay, the northern part of the Sulu Sea, between Panay and Palawan, including the locality about the Cuyo Islands, Basilan Strait, Ragay Gulf, and the area bounded by Samar, Biliran, and Masbate Islands.

The hydrographic survey of the southwest coast of Negros Island developed a number of anchorages easy of access and suitable for use during the northeast monsoon. The entire coast of this region is free from dangers to navigation, with the exception of inshore reefs.

The hydrography of the west coast of Panay was completed to the junctions with the work of the years 1907 and 1910. In this region it was found that approximately 15 to 25 miles offshore there exists a narrow submarine valley 500 to 800 fathoms in depth beyond which to the westward is a great bank with less than 100 fathoms which extends the entire distance to Palawan Island. Upon this bank, about the Cuyo Group, many shoals were located. Isolated coral pinnacles from 30 to 50 feet in height and only a few yards across also exist in this region. These are difficult to discover by a regular system of sounding lines or by the color of the water, and eventually much closer hydrography than has been found necessary in other parts of the archipelago will be required about the Cuyos and over the extensive bank to the westward.

Magnetic survey.—In March, 1912, a magnetic observer arrived in Manila from the Washington office of the Coast and Geodetic Survey to take up the work of a magnetic survey in the Philippine Islands. Actual field work was commenced on March 25, and from that day to the end of the fiscal year 14 stations were occupied. A meridian line was established at Manila, at the request of the local authorities, in connection with the regular necessary observations for the magnetic declination.

Mystic River of Palawan.—At the request of the undersigned, two of the officers of the service were detailed in September, 1911, to make a special survey of a subterranean river which empties into a cove near the center of St. Paul Bay on the west coast of the island of Palawan. It crosses the beach through a narrow channel immediately behind which is a lagoon about 120 meters long by 25 to 30 meters wide and with depths of from 6 to 8 feet. The river empties into the upper end of this lagoon through an irregular arched opening 6 or 7 meters high and roughly three times this in width at the base of a vertical cliff. The survey was conducted in ship's boats to a point about 4,000 meters from the mouth of the stream, where the channel was found to be entirely blocked in a small pool bounded on the right by a solid rock wall and on the left by a pile of bowlders and loose débris perhaps 12 meters in height which had apparently fallen from the roof. The soundings taken indicate a depth of from 2 to 39 feet, the depth at the point where the stream was blocked being 15 feet. The height of the roof in average sections varied from about 6 meters to about 15 meters, increasing in individual chambers to as much as 30 meters. Over the fallen rock pile obstructing the passage the roof was perhaps 40 meters above the stream. The width of the cavern also varied from 10 to 20 meters in the lower stretches to 50 or 60 meters in the more irregular upper sections.

The stream in general fills the entire cavern between usually straight walls and there are no navigable side openings of any importance. The water is fresh and, at the time of the survey, was flowing in a gentle current hardly exceeding one-half mile an hour. The rock specimens were all said to be limestone of a fine-grained cryptocrystalline character. It is probable that this is a comparatively recent fault appropriated by a surface stream.

During a second visit to this river, its entire length was again traversed to the limit of the survey and a further superficial investigation across the obstructing pile of rock made. This showed that the river continued for an unknown distance beyond. When the opportunity offers, canoes or light canvas boats which can be transported across the obstruction will be taken in, and the investigation will be continued to the source of the stream if possible.

Plan.—The practice of the bureau has been to take up new surveys in the order of the most pressing needs of the mariner with due regard to the commercial importance of unsurveyed regions and to the economy resulting from continuous connected surveys, thus avoiding the necessity for extensive future adjustment. We have now reached the point where there are few localities of commercial importance which remain unsurveyed, and there is a noticeable decrease in the number of applications for surveys. It is planned to proceed to the completion of the work in an uninterrupted, systematic, and connected manner, and we hope to show increased economy and efficiency as a result.

MANILA OFFICE.

Computing division.—There were received from the field and registered in this division 524 survey records, distributed as follows:

Hydrographic.....	280
Tidal.....	134
Triangulation.....	93
Magnetic.....	14
Miscellaneous.....	3
Total.....	524

The triangulation of the entire circuit of the island of Cebu, with a main scheme about 300 miles in linear axial extension, involving five measured bases in addition to the closures in latitude, azimuth, and length, was completely adjusted, as was also the triangulation of that portion of the Pacific coast of the Archipelago from Tacloban, Leyte, and the southern coast of Samar to Cautit Point on the east coast of Mindanao, comprising a chain of about 200 miles, including 50 miles of triangulation on the east coast of Dinagat necessary to close the circuit of that island.

The entire triangulation in the area bounded by Panay, Mindoro, Luzon, and Masbate is now in process of adjustment.

Drafting division.—During the year 105 original hydrographic and topographic sheets were received from field parties, making a total of 982 received since the date of the commencement of surveys in the islands. Of this total number 311 remain at the Manila office, the others having been forwarded to Washington. Twenty tracings for chart publications were completed and forwarded to the Wash-

ington office for printing, consisting of seven correction pieces, four new editions, and nine new charts.

At the end of the fiscal year 14 chart drawings, consisting of 2 correction pieces, 1 new edition, and 11 new charts, were in preparation.

A table of distances between ports of the Philippine Islands was prepared in this division for the use of the board of rate regulation in determining proper charges for the transportation of freight and passengers. All questions regarding distances between ports are submitted by the board to the bureau of coast and geodetic survey for determination, and the table of distances is kept up to date by the notation of additions and changes.

The list of geographical names, which is maintained in this division, is steadily growing and is estimated at present to consist of considerably more than 30,000 names.

Nautical division.—In this division Sections III and IV, Philippine Islands Sailing Directions, were revised and republished and material for the same class of work for Section I has been gathered together. The following is a list of publications issued during the fiscal year:

Charts issued to—

Agents.....	981
Military authorities.....	832
Naval authorities.....	1, 076
Civil authorities.....	1, 561
Coast and geodetic survey vessels.....	157
Coast and geodetic survey suboffice.....	288
Miscellaneous parties.....	234
Sold for cash.....	1, 723
Total issued.....	6, 852

Tide tables:

Sold for cash.....	59
Issued to agents for official use.....	61
Total issued.....	120

Sailing Directions, catalogues, and Notices to Mariners:

Sailing Directions.....	1, 027
Catalogues.....	221
Notices to Mariners.....	5, 130

Geographical division.—Considerable progress was made in the compilation work of this division during the year and six maps on a scale of 1:200,000 are well advanced. These maps cover the regions about Panay, central Luzon, southwestern Luzon, northern Luzon, southeastern Luzon, and Cebu and Bohol. It is estimated that those of Panay, central Luzon, and southwestern Luzon will be ready for printing about September 1, 1912, and that blue-print copies of northern Luzon will be ready for distribution by about July 15, 1912. In addition to the 1:200,000 scale maps a 1:1,000,000 scale map on a polyconic projection is being prepared. This is intended for a wall map and will be valuable as such because of its size and the amount and accuracy of the information it will contain. It is in conformity with the scale adopted by the International Geographic Congress for the atlas of the world. The projection for this map has been completed and the compilation is now in progress.

GENERAL PROGRESS.

The following figures indicate the field work accomplished during the year:

Triangulation:

Area covered.....	square miles..	18, 269
Signals and scaffolds erected.....		308
Stations occupied (horizontal angles).....		269
Geographical positions determined.....		536
Base lines measured.....		8
Azimuth stations occupied.....		3
Magnetic stations occupied.....		16

Topography:

Area covered.....	square miles..	1, 315
Detail coast line surveyed.....	miles..	1, 316
Rivers and creeks surveyed.....	do..	318
Roads surveyed.....	do..	158
Topographic sheets completed.....		49½

Hydrography:

Area sounded.....	square miles..	9, 535
Run while sounding.....	miles..	25, 297
Soundings made.....	number..	314, 723
Tidal stations established.....		23
Current stations occupied.....		10
Hydrographic sheets finished.....		53½
Days in the field.....	number..	1, 627

The number of miles of detail or actual shore line surveyed during the past eight years is as follows:

	Miles.		Miles.
1905.....	494	1909.....	1, 017
1906.....	626	1910.....	1, 637
1907.....	1, 495	1911.....	1, 229
1908.....	1, 573	1912.....	1, 316

The number of miles of hydrography run during the same period is:

	Miles.		Miles.
1905.....	7, 573	1909.....	22, 552
1906.....	11, 457	1910.....	19, 208
1907.....	23, 339	1911.....	23, 432
1908.....	24, 454	1912.....	25, 297

For reference in relation to the subject of general progress the following information is furnished:

Total length of general coast line of the Philippine Islands (approximate) statute miles.....	11, 511
General coast line surveyed during the fiscal year ended June 30, 1912 (approximate)..... statute miles..	748
Total length of general coast line surveyed to June 30, 1912 (approximate) statute miles.....	6, 658
Detail shore line surveyed during the fiscal year ended June 30, 1912, statute miles.....	1, 316
Total length of detail shore line surveyed to June 30, 1912..... statute miles..	11, 308
Lines of soundings run during the fiscal year ended June 30, 1912..... do....	25, 297
Total run to June 30, 1912..... do....	172, 876
Hydrography surveyed during the fiscal year ended June 30, 1912, square statute miles.....	9, 535
Total hydrography surveyed to June 30, 1912..... square statute miles..	66, 217

At the close of the fiscal year 1912, 57.8 per cent, exclusive of Spanish and British surveys, of the entire general coast line of the archipelago had been surveyed, compared with 51.3 per cent at the close of the fiscal year 1911, an advance of 6.5 per cent.

COST.

At this date this item can not be supplied in full, as the statements from the disbursing agent at the Washington office are not yet available. The cost of the bureau to the Philippine Islands has been ₱206,142.22, an increase of ₱960.92 over the cost for the previous year.

BUREAU OF LABOR.

PERSONNEL.

The number of officers and employees in the bureau of labor on June 30, 1912, was 26, an increase of 4 since July 1, 1911. They were distributed: 12 at the Manila general office, 3 at the free employment agency at Manila, 4 at the free employment agency at Cebu, 3 at the free employment agency at Iloilo, and 4 at the free employment agency at Vigan, Ilocos Sur.

EMPLOYMENT AGENCIES.

In accordance with a provision in Act No. 1868, creating a bureau of labor in the department of commerce and police, which reads, "The purpose of this bureau shall be * * * to organize in such towns in the Philippine Islands as it may deem necessary or advisable one or more free employment agencies," three such agencies were established, as reported previously, located at Manila, Cebu, and Iloilo. On January 29, 1912, a fourth agency was opened at Vigan, Ilocos Sur, to serve the densely populated Ilocos Provinces and those adjoining.

The following tabulation will give a general idea of the activity of these agencies during the year:

Agency.	Applicants registered.	Employed.	Rate per cent of applicants employed.
Manila.....	2,986	1,759	58.90
Cebu.....	2,771	2,185	78.84
Iloilo.....	1,729	736	42.56
Ilocos Sur.....	370	162	43.78
Total.....	7,856	4,842	61.64

Of the total number of 4,842 persons for whom employment was found by the 4 agencies, 2,244 were transferred to points outside of the provinces in which the agencies are located. Of this number the Manila agency sent 440 to the Province of Mindoro for plantation work and 265 to the Province of Cavite. The Cebu agency supplied 500 to Occidental Negros, 348 to the Moro Province, 132 to Bohol, and 101 to Leyte.

INDUSTRIAL STATISTICS.

The compilation of statistics concerning the more important industries carried on in the islands is progressing satisfactorily, but very slowly on account of the limited force of the bureau. The data secured includes the nature and location of the establishments, capital

invested in grounds, machinery, and tools; the number of laborers employed, showing age, sex, etc.; the hours of labor; total amount of wages paid laborers; value of production, and other similar information, for calendar years, a printed form being furnished to factories and corporations to be filled out. While a complete analysis of the figures so far obtained would be of little value, as not nearly all the industrial establishments are on record as yet and in some cases accounts have not been kept in such shape that the desired information can be furnished, the table below will show in general for some of the more important industries, the reports secured for the calendar year 1911:

	Number of establish- ments.	Capital invested.	Wages paid.	Value of produc- tion.
Aerated water factories.....	21	P68,800	P30,942	P128,375
Bakeries.....	88	254,724	187,283	1,345,093
Brick and paving-stone factories.....	7	75,800	25,276	74,197
Button factories.....	2	56,000	9,633	51,000
Candy and sweetmeat factories.....	34	44,317	35,520	323,309
Carriage works.....	65	195,347	157,537	457,434
Chocolate factories.....	20	58,630	35,777	394,844
Cigar factories.....	53	4,262,446	2,183,049	12,202,515
Distilleries.....	27	1,899,272	89,231	1,191,460
Foundries.....	15	117,170	88,890	322,133
Furniture factories.....	39	1,154,563	356,110	1,438,148
Hat factories.....	9	378,100	114,174	1,119,455
Printing and lithographing establishments.....	15	501,737	159,464	564,193
Rice mills.....	99	1,124,581	135,905	2,366,534
Rope factories.....	2	425,000	31,690	295,000
Sawmills.....	15	1,015,528	164,171	1,075,882
Shoe factories.....	62	181,714	91,357	419,400
Slipper factories.....	116	101,843	140,873	542,529
Soap factories.....	35	78,850	36,805	725,341
Sugar mills.....	916	9,813,526	3,010,743	7,295,153
Tanneries.....	18	6,600	44,282	203,420

For more detailed information the annual report of the director of labor should be consulted.

DOMESTIC INDUSTRIES.

The bureau is conducting an investigation regarding, and making a compilation of, the domestic industries in the Philippine Islands, showing the location of the works, the people engaged in them, hours of labor, amount of product, the disposition of the same, etc. This record will be confined to purely household industries, such as the making of sacks, baskets, candles, rope, native liquors, brooms, mats, hammocks, bamboo and rattan furniture, etc., and will not include anything of the importance of a factory or commercial house. Much of the information in connection with this is being secured from municipal presidents, who are in a position to render valuable assistance.

STRIKES.

There were 20 small strikes during the year—16 in the city of Manila and 4 in the provinces—involving a provincial government, shipping houses, tobacco factories, a construction company, a saw-mill, a printing establishment, and a shoe factory. The number of strikers were 4,488, of whom 3,756 were employees of tobacco fac-

tories, 686 common laborers, 35 employees of a printing establishment, 9 shoemakers, and 2 foremen. Three strikes lasted 1 day each; two, 2 days each; two, 3 days each; one, 6 days; one, 7 days; two, 8 days each; one, 12 days; one, 15 days; two, 17 days each; one, 20 days; and four, 23 days each. The causes of the various strikes covered about the same ground as the reasons for similar disturbances the world over, namely: Desires for the transfer of a factory division foreman to another division; the reinstatement of discharged employees; the cancellation of an order affecting the management of personnel; increased wages; the restoration of old wages; a reduction of hours of labor; the expulsion of a foreman; a reduction in the amount of work required. Sixteen of these strikes were adjusted by the accession of the employers to the demands of the strikers, and the dissatisfied employees failed of their purpose in the other four.

LABOR ACCIDENTS.

During the fiscal year there were 170 labor accidents recorded at the bureau, of which a majority, 93, occurred in the city of Manila. This was an increase over the figures for the previous year in the total number of accidents of 2, and of accidents in the city of Manila of 27. The 170 accidents resulted in injury to 215 persons, an increase of 5 over the previous year. Of these, 101 were victims of accidents in the city of Manila, an increase of 27. Of the victims, 56 died as a result of their injuries, 156 recovered, and final report on the remaining 3 is pending. Of the 156 who recovered, 12 are permanently incapacitated for work. One hundred and sixty accidents were reported as "casual," for which no responsibility can be fixed; 8 were due to carelessness or recklessness on the part of employers and employees; and final reports on the remaining 2 are not yet in. Of the total number of victims, 153, representing injured persons and the heirs of those who died, received settlements from their employers, 47 received nothing, and negotiations with regard to the remaining 15 are not yet completed.

CLAIMS AND COMPLAINTS.

There were submitted to the bureau during the year 199 claims and complaints, as compared with 49 during the previous year, which would seem to indicate a considerably increased appreciation of the value of the bureau in adjusting matters of this nature. Of these, 188 were claims for wages alleged to be due, 2 for indemnity for damages, 2 for the return of alleged minor children recruited by a commercial labor agency for the cane fields of Hawaii, 3 regarding readmission to employment of expelled employees, and the others complaints against alleged abuses. There were 890 persons interested in the claims and complaints presented, of whom 369 were common laborers, 257 tobacco workers, 47 household servants, 45 carpenters, and 29 vehicle drivers, the remainder being of a score of other classes of employment. Of the 199 claims and complaints, 118 were decided favorably to the claimants, 38 unfavorably, 2 were dropped by the interested parties, and 41 are pending. Eight of the claims were taken to court, 6 being decided favorably to the claimants, 1 unfavorably, and 1 is pending. The total amount of wages involved in 188 claims was ₱4,801.37, of which ₱2,009.23 has been collected.

LEGISLATION.

The following laws which are of direct interest to the bureau of labor in connection with its work and investigations were enacted by the Philippine Legislature and the Philippine Commission during the period July 1, 1911, to June 30, 1912:

Act No. 2071, entitled "An act prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Mountain Province, and the Provinces of Nueva Vizcaya and Agusan, and providing punishment therefor."

Act No. 2098, entitled "An act relating to contracts of personal service and advances thereunder and providing punishment for certain offenses connected therewith."

Act No. 2129, entitled "An act authorizing municipalities and townships to establish a register of mechanics or day laborers residing therein, and for other purposes."

EMIGRATION OF LABORERS TO HAWAII.

The Manila agent of the Hawaiian Sugar Planters' Association in his report to the bureau of labor states that in the course of the fiscal year 1912 a total number of 3,820 Filipinos departed from Philippine ports under care of agents of the company to work in the cane fields and sugar mills of Hawaii. Of this number, 3,205 were men, 352 women, and 263 children and infants.

No evidences of dissatisfaction with conditions in Hawaii have come to our attention during the year; in fact, a private investigation of all the large plantations there, conducted by a member of the Philippine Assembly, found the Filipino colonies as a whole contented.

GENERAL.

We repeat what has been previously stated by a number of officials, that commercial and economic conditions in the Philippine Islands have shown a continual change for the better since the passage by Congress of the tariff law of 1909, commonly known as the Payne bill. The effect of this law has naturally extended through commercial organizations and to the common laborer, with the result that the old rumors of famines because of food shortage or the lack of work to enable laborers to earn money for the purchase of the necessities of life are becoming things of the past. The sugar and tobacco industries especially, and the people engaged in them, have benefited from the throwing open of the American market.

The sales agency established by the government by Act No. 2061, to distribute the products and manufactures of the people of the provinces inhabited by Moros or other non-Christian tribes, to assist the inhabitants of such provinces to find a market for their labor, and to stimulate the interest of persons outside of the Philippine Islands in the products of Moro and other non-Christian Provinces should do much to encourage native industries in the localities mentioned. At the close of the year the building in which the agency will be housed, located in the port district, city of Manila, was nearing completion. It will probably be two or three years, however, before the results of its establishment will be generally noticeable in the provinces from which it will draw its stock.

COST.

The entire cost of operating the bureau of labor for the year ending June 30, 1912, including all expenses of whatever nature, was ₱53,100.63. Of this amount, ₱28,778.68 was expended for salaries and wages.

OFFICE OF THE SUPERVISING RAILWAY EXPERT.

PERSONNEL.

The staff employed was the same as for previous years. Two inspecting engineers, one of whom will not return from the United States before January, 1913, availed themselves of leave of absence. The work of the office and field force has been principally the inspection of construction work and the checking of expenditures therefor on the Manila Railroad under Acts Nos. 1510 and 1905.

An inspecting engineer maintained his office in Baguio during the official summer season from February 12 to June 3, 1912.

LINES AUTHORIZED, CONSTRUCTED, AND IN OPERATION.

The following table shows the kilometerage of railroad lines authorized by law to be constructed in the Philippine Islands, with the length constructed, to be constructed, and in operation on June 30, 1912:

Road.	Author- ized.	Constructed.		To be con- structed.
		In opera- tion.	Not in opera- tion.	
Manila Railroad Co.	¹ 1,306.9	725.8	16.3	¹ 564.8
Philippine Railway Co.	368.6	212.0		156.6
Manila Electric R. R. & Light Co.	50.7	47.4		3.3
Manila Suburban Railways Co.	19.9	9.9		10.0
Tarlac Railway Co.	20.6	² 20.6		
Daet Tramway Co.	7.2	7.2		
Insular Coal Co.	12.0	12.0		
Cebu Electric Line.	(?)			(?)
Total.	¹ 1,785.9	1,034.9	16.3	¹ 734.7

¹ Approximate.

² Line has been in operation, but not operated the past year.

MANILA RAILROAD CO.

Construction.—During the fiscal year work was executed as follows:

	Northern lines.	Southern lines.	Total.
	Km.	Km.	Km.
Grading.	7.3	47.0	54.3
Track laying.	8.5	61.8	70.3
Line opened.	16.4	88.7	105.1

Construction on the line to Baguio, the summer capital, which leaves the main line at Aringay, has been commenced. Grading on the Aringay end has been partially completed as far as kilometer 10.7, and a considerable quantity of grading has been done on the Baguio end for a distance of about 7 kilometers, none of the work being entirely completed. Preliminary work has been accomplished looking toward the ordering of steel bridge material, and progress is being made in the construction of the south one of the five or more tunnels on the line. Twelve kilometers of rack track will be required, and the rack expert is in Europe to order material and equipment for that part of the line.

The main line south was definitely located in 1907 and 1908, with the exception of that portion between Lucena and Nueva Caceres. During the fiscal year 1912 a considerable part of the location between Lucena and Calauag, Tayabas, on the east coast of Luzon, has been completed, and on June 30, 1912, construction was under way at Hondagua, the east coast port near Lopez. A maximum grade of 1.2 per cent has been obtained between Lucena and the head of Ragay Gulf, but beyond that point to Nueva Caceres it may be impossible to obtain so light a grade.

Beginning with July 1, 1912, it will be necessary for this company to lay an average of 91 kilometers of track per annum in order to complete the lines authorized under Acts Nos. 1510 and 1905 by September 12, 1918, as required.

Bonds issued.—To July 1, 1911, certificates for the issue of bonds on guaranteed lines (southern lines) of the Manila Railroad Co. to a total of \$2,996,000 United States currency had been approved. On October 18, 1911, additional certificates to the amount of \$940,000 United States currency were authorized, and on January 22, 1912, \$1,000,000 United States currency, making the total authorized bond issue on guaranteed lines on June 30, 1912, \$4,936,000 United States currency. These bonds cover 229 kilometers (142.3 miles) of line, all in full commercial operation. The average cost, therefore, to June 30, 1912 (southern or guaranteed lines only) has been ₱43,110 per kilometer, or \$34,688 United States currency, per mile.

The government has paid out in interest on these guaranteed bonds to the end of the fiscal year ₱444,742.22, of which all but ₱33,730.25 has been returned to the government from net earnings, with ₱14,270.14 additional to be returned for the fiscal year 1911.

Since the calendar year 1910 net earnings have been sufficient to pay fixed charges and leave a considerable surplus to be disposed of by the directors of the company.

Operation, northern lines.—On June 30, 1912, there were on the northern lines 441.7 kilometers of main track in operation, there having been an increase of 0.4 kilometer since the same date in 1911. Owing to the manner in which the books of the railway company are kept, operating results can be shown only by calendar years to December 31, 1911:

	Calendar year—		Increase.
	1910	1911	
Average operated kilometerage.....	409.1	441.7	32.6
Operating revenue.....	₱2,494,785.60	₱2,833,147.81	₱338,362.21
Operating expenses.....	1,072,974.47	1,257,158.20	184,183.73
Net operating revenue.....	1,421,811.13	1,575,989.61	154,178.48
Taxes.....	20,213.28	28,524.65	8,311.37
Operating income.....	1,401,597.85	1,547,464.96	145,867.11
Income from other than transportation.....	297,512.20	354,239.95	56,727.75
Gross income.....	1,699,110.05	1,901,704.91	202,594.86
Deductions from gross income:			
Interest on funded debt.....	(1)	1,599,840.00	.....
Other interest.....	(1)	101,144.80	.....
Total deductions from gross income.....		1,700,984.80	.....
Net corporate income.....		200,720.11	.....
Percentage of operating expenses to gross operating revenue.....	43.0	45.0	2.0

¹ No report.

EQUIPMENT.

	Calendar year—		Increase.
	1910	1911	
Locomotives.....	64	64	.....
First-class passenger cars.....	8	8	.....
Second-class passenger cars.....	10	10	.....
Third-class passenger cars.....	68	76	8
Combination passenger cars.....	25	28	3
Parlor cars.....	1	1	.....
Baggage, express, and postal cars.....	33	33	.....
Freight cars.....	694	770	76
In company's service.....	156	127	1 29

¹ Decrease.

New 65-pound rail was used in replacement of 45-pound rail on several kilometers of line. Washouts in the latter part of the year were numerous and expensive, but the track generally was kept in excellent condition.

Operation, southern lines.—On December 31, 1910, there were 119.9 kilometers of the southern lines in operation, and on December 31, 1911, this figure had been increased to 128.8 kilometers. The results of operation follow:

	Calendar year—		Increase.
	1910	1911	
Average operated kilometerage.....	111.8	128.8	17.0
Operating revenue.....	P 201,869.73	P 761,850.16	P 559,980.43
Operating expenses.....	134,459.02	352,583.63	218,124.61
Net operating revenue.....	67,410.71	409,266.53	341,855.82
Net revenue from outside operations.....	658.54	4,487.13	3,828.59
Total net revenue.....	68,069.25	413,753.66	345,684.41
Taxes.....	1,574.74	8,124.18	6,549.44
Operating income.....	66,494.51	405,629.48	339,134.97
Other income.....	(1)	248,839.61	.....
Gross income.....	.....	654,469.09	.....
Deductions from gross income:			
Rent of joint facilities.....	(1)	27,329.21	.....
Interest on funded debt.....	(1)	229,703.20	.....
Other interest.....	(1)	242,676.93	.....
Total deductions from gross income.....	.....	499,709.34	.....
Net corporate income.....	.....	154,759.75	.....
Percentage of operating expenses to gross operating revenue...	67.0	46.3	² 20.7

¹ No report.² Decrease.

EQUIPMENT.

	1910	1911	Increase.
Locomotives.....	21	26	5
Cars:			
First and second class passenger.....	5	7	2
Third-class passenger.....	28	28	.....
Kitchen.....	.....	1	1
Inspection.....	.....	1	1
Baggage, express and combination.....	13	22	9
In freight service.....	190	241	51
In company's service, freight.....	121	124	3

No accidents have been reported from the southern lines, and only minor interruptions to traffic were caused by storms and washouts.

PHILIPPINE RAILWAY CO.

Construction, island of Cebu.—All construction accounts pertaining to Cebu were practically closed in March, 1912. The only item remaining on which bonds may be issued is unsettled right of way, and it is hoped that this will be all adjusted within a few months.

To July 1, 1911, certificates for the issue of \$3,268,000 United States currency of bonds had been signed by the government, and additional certificates to a total of \$49,000 United States currency were approved during the fiscal year 1912, making the total bond issue authorized to date for construction on the island of Cebu \$3,317,000, United States currency. The cost of this line is, therefore, to June 30, 1912, ₱69,394 a kilometer, or \$55,842 United States currency, a mile.

Construction, island of Panay.—As on the island of Cebu, construction work, so far as guaranteed bonds are concerned, was practically closed in March, 1912, with the exception of right of way matters.

The amount of bonds, certificates for the issue of which had been signed prior to July 1, 1911, was \$4,839,000 United States currency. Additional certificates to a total of \$226,000 United States currency have been approved during the fiscal year, so that on June 30, 1912, the total amount of bonds authorized by the government to be issued for construction on the island of Panay was \$5,065,000 United States currency, from which it will be seen that the cost of the line on this island to the end of the fiscal year has been ₱87,102 a kilometer, or \$70,055, United States currency, a mile.

The average cost of the lines on both Cebu and Panay has been ₱79,113 a kilometer, or \$63,645 United States currency, a mile.

Interest paid on bonds issued.—To the end of the fiscal year 1912 the government has paid out in interest on the guaranteed bonds of the Philippine Railway Co., including interest due on July 1, 1912, but excluding all cost of exchange, ₱2,241,828.24. Of this amount there has been returned to the government from net earnings (not including a payment of ₱58,073.47 due June 30, 1912, but not paid until August 16, 1912) ₱47,691.53, leaving an amount due the government of ₱2,194,136.71.

Operation, islands of Cebu and Panay.—The operating accounts of the Philippine Railway Co. are kept by fiscal years commencing July 1, and ending June 30.

The length of line in operation on June 30, 1912, was:

	Kilometers.
Cebu:	
Main line.....	95.60
Sidings.....	3.23
Total.....	98.83
Panay:	
Main line.....	116.40
Sidings.....	2.34
Total.....	118.74
Gross kilometerage operated.....	217.57

	Fiscal year—	
	1911	1912
Operating revenues.....	(1)	P 773, 940. 90
Operating expenses.....	(1)	596, 848. 40
Net operating revenues.....	(1)	177, 092. 50
Taxes.....	(1)	3, 751. 09
Operating income.....	(1)	173, 341. 41
Other income.....	(1)	6, 457. 80
Gross income.....	(1)	179, 799. 21
Deductions from gross income:		
Interest on funded debt.....	(1)	660, 405. 34
Additions and betterments charged to income.....	(1)	51, 478. 24
Appropriation to reserves.....	(1)	22, 555. 97
Total deductions.....	(1)	734, 439. 55
Net corporate deficit.....	(1)	554, 640. 34

¹No consolidated report.

EQUIPMENT.

	Fiscal year—		Increase.
	1911	1912	
Locomotives.....	15	15	.....
Cars:			
Parlor and first-class combination.....		1	
First and second class combination.....		7	
Second-class.....		12	
Third-class.....	45	21	5
Second-class and baggage combination.....		6	
Baggage, express, and postal.....		1	
Others in passenger service.....		2	
Freight.....	155	192	37
In company's service.....	49	7	¹ 42

¹ Decrease.

A few minor accidents have been reported. The track on the island of Cebu has been maintained in good condition, that on the Island of Panay only fair.

MANILA ELECTRIC RAILROAD & LIGHT CO.

Construction.—On March 24, 1911, by Ordinance No. 144, the municipal board of the city of Manila authorized the Manila Electric Railroad & Light Co. to construct a line along Taft Avenue, Calles Herran, San Marcelino and Sandejas to Vito Cruz, and on June 30, 1912, 3.73 kilometers had been completed. This company operates the only "standard gauge" (4 feet 8½ inches) track in the islands.

Operation.—This company has changed its methods of reporting operating transactions from a fiscal year ending June 30, to the calendar year, so that this report for the calendar year overlaps the previous report for the fiscal year:

	Fiscal year ending June 30, 1911.	Calendar year 1911.
Kilometerage of lines in operation.....	64. 7	66. 0
Operating revenue.....	P 1, 244, 048. 35	P 1, 621, 701. 17
Operating expenses.....	P 641, 839. 86	P 1, 251, 255. 28
Operating income.....	P 602, 208. 49	P 638, 702. 16
Percentage of operating expenses to gross revenue.....	52. 0	48. 0
Total pay passengers carried.....	14, 169, 332	14, 656, 254

The equipment of this line consisted of 105 passenger cars, one work car, one water sprinkler, and one freight car. The line has been maintained in fair condition. Reports show 7 persons killed and 308 injured during 1911.

MANILA SUBURBAN RAILWAYS CO.

This is an extension of the Manila Electric Railroad & Light Co., consisting of 11.6 kilometers of main line and sidings from Santa Ana Junction to the town of Pasig. No construction work was performed during the year.

Operation.

	Fiscal year ending June 30, 1911.	Calendar year 1911.
Operating revenue.....	P251,563.03	P315,414.83
Operating expenses.....	P116,348.18	P135,460.16
Operating income.....	P135,214.85	P154,983.53
Percentage of operating expenses to gross revenue.....	46.2	41.0
Total pay passengers carried.....	4,073,730	3,995,621

The equipment of this line consisted of six passenger cars, three freight cars and four trailers. The line has been maintained in fair condition. Reports are received of one person killed and twenty injured during the calendar year 1911.

DAET TRAMWAY CO.

This is a line 7.24 kilometers long between the towns of Daet and Mercedes in the Province of Ambos Camarines. No report has been received from the company since 1911.

TARLAC RAILWAY CO.

This line, 20.58 kilometers in length between the towns of Paniqui and Camiling in the Province of Tarlac, was not in operation during the year, and no report has been rendered by the Company.

LEGISLATION.

In Act No. 2083, passed by the Philippine Legislature on December 21, 1911, it was provided that 25 per cent of the "gold standard fund" might be loaned under certain conditions to the Manila Railroad Co. to complete certain sections of railroad, and on January 22, 1912, a contract was entered into between the Government of the Philippine Islands and the Manila Railroad Co., defining the sections on which the loans would be used, the approximate amount to be loaned thereon, the time for completion, and other particulars required by the law. To June 30, 1912, the total amount loaned under this authority was P200,000. On that date 2,240 men were employed on gold-fund loan sections of line, 2,040 of whom were engaged on the Baguio line.

Act No. 2096, passed on January 13, 1912, fixed the apportionment between the insular government, the province or provinces, and the municipality or municipalities within which the business is carried on, of the tax paid by the grantees of railroad franchises.

Act No. 2100 amended sections 82, 83, 85, 88 and 93 of Act No. 1459 "the corporation law" with reference to the approval of plans, crossing of public highways, authorization for the opening of new lines, crossing of the roadway and right-of-way of one railroad corporation by other authorized lines of railroad and the speed of locomotives or other motors or trains operated over rail lines within the limits of cities and through centers of population of municipalities.

COST.

The net expenses of the office of the supervising railway expert chargeable to government funds during the fiscal year amounted to ₱13,275.63.

OFFICE OF THE CONSULTING ARCHITECT.

PERSONNEL.

Assistant Architect Louis E. Marie was acting consulting architect from the beginning of the fiscal year to October 16, 1911, on which date the consulting architect, Mr. W. E. Parsons, returned to duty from a leave spent in the United States and Europe. Until June 17, 1912, the officers and employees in the office of the consulting architect numbered 30. On that date the personnel was reduced to 25 by the transfer of the structural engineer and 4 building inspectors to the bureau of public works.

WORK PERFORMED.

The architectural designing of 104 projects, representing an aggregate estimated construction cost of ₱12,045,541.27, was handled during the year. Of these, the plans for 43 projects, with an aggregate estimated cost of ₱1,352,012.27, were completed and accepted, and 61 are in course of preparation, preliminary plans in most instances having been prepared and submitted for approval. These figures do not cover services rendered the city of Manila in the location and treatment of streets and parks, including the Cavite Boulevard and the development of the port district, nor plans for the development of Baguio, Cebu, and other cities.

Of the 43 projects for which plans were completed, 33 contemplated reenforced concrete construction costing ₱1,171,890.27, 6 provided for native hardwood construction costing ₱173,318, and 4, all of which were for alterations or additions to existing structures, called for ironwork costing ₱6,804.

The average cost of plans and specifications prepared in the office of the consulting architect has been 2 per cent of the estimated total cost of the projects.

COMPLETED PLANS.

The projects for which plans have been completed include the construction of University Hall for the University of the Philippines at Manila, ₱250,000; the sales agency building in the port district at Manila, ₱60,000; lumber sheds for the bureau of supply, ₱147,840; a communicable disease ward at San Lazaro Hospital, ₱40,000; public school in the district of Malate, city of Manila, ₱90,016; provincial building, ₱81,225; prison, ₱52,215; storehouse, ₱10,277; and schoolhouse ₱16,210, all at Cabanatuan, Nueva Ecija; and various offices, cottages, and barracks at Baguio, ₱116,288.

PENDING PLANS.

The projects, plans for which were under consideration and in course of preparation at the close of the year, include the new capitol group, Manila, ₱6,113,605.80; new customhouse, Manila, ₱700,000; new bureau of printing, Manila, ₱285,000; school of arts and trades, Manila, ₱250,000; contagious disease ward, Philippine General Hospital, ₱149,917; provincial buildings for Pangasinan, Cebu, Leyte, and Samar, ₱235,000, ₱200,000, ₱125,000, and ₱125,000, respectively; and the Governor General's official residence at Baguio, ₱150,000.

COMPLETED STRUCTURES.

The more important structures completed were the Philippine Normal School at the corner of Taft Avenue and Calle Ayala, the service building at the Philippine General Hospital, an addition to the bureau of science, a home for doctors and nurses at San Lazaro Hospital, a provincial building at Capiz, an addition to the provincial building at Iloilo, a provincial jail at Iloilo, and the Southern Islands Hospital at Cebu. Seventy-two barrio schools were constructed from the standard schoolhouse plans approved by the consulting architect at a cost of ₱580,497.99.

AQUARIUM, MANILA.

The construction of an aquarium for the city of Manila, under the supervision of and in accordance with plans prepared by the consulting architect, was commenced on January 5, 1911. The site selected is the detached bastion near the Palacio entrance to the walled city, in close proximity to Government Center, the port district, the new luneta, the Manila Hotel, and a number of clubs. The aquarium consists of a wide corridor built into the inner slope of the bastion, extending parallel to its outer walls. The tanks, 25 in number, extend along the inner side of the corridor. In addition to the 25 tanks, which are each 1 meter high and 2 meters wide, there are 3 large pools for sharks and crocodiles. Sufficient space has been left between the present corridor and the bastion walls to provide for an additional corridor with tanks, thus doubling the capacity of the aquarium, should this be desired at some future time.

The space in the center of the bastion not necessary for the aquarium proper has been appropriately treated with tropical plants and paths.

It is expected that the aquarium will be ready for operation in November, 1912.

THE CAPITOL GROUP.

A set of preliminary plans of the entire capitol group, with special plans and sections of the capitol building proper, was submitted by the capitol committee to the Legislature for its consideration on February 3, 1912. A report on the architectural conditions and estimates of cost accompanied the plans.

The style adopted for the group is Roman classic, and all the buildings are intended to be surrounded with double walls in the form of colonnades, to serve as a protection from the sun and storms.

The construction throughout is proposed to be of incombustible materials, designed in such a way as to be as nearly earthquake proof

as modern engineering science can devise. Where wood must necessarily be used—as in floors, doors, and windows—it will be of selected Philippine species.

The grand total of the estimate for the entire group, including the cost of general construction, plumbing, lighting, plans and specifications, and supervision is ₱6,113,605.80.

For various reasons the Legislature adjourned without taking definite action on these plans and estimates, and since that time work on the plans has steadily continued. The drawings have been developed on a larger scale and architectural and structural details are being worked out.

Subject to the approval of the general layout by the Legislature, the plans now being prepared will serve as working drawings. Any portion of the project may be commenced immediately upon the appropriation of funds for the work, the design being such that construction may be carried out in sections.

IMPROVEMENT OF THE CITY OF MANILA.

During the year the grading of the city moats, forming sunken panels of greensward, has continued as fast as funds have become available, and the area between the Legaspi Monument and the Calle Victoria entrance to the walled city has been completed.

This space, with the exception of certain corners where appropriate trees and shrubs are to be planted, is available for baseball, football, and other athletic sports, and has already demonstrated its popularity as a playground.

The new capitol layout includes plans for the treatment of the luneta extension with drives, paths, and public gardens, which are being carried out as fast as the soil becomes suitable for planting.

IMPROVEMENT OF THE CITY OF CEBU.

In March, 1912, the consulting architect, at the invitation of the Governor General, visited the city of Cebu and made a study of general conditions preparatory to making a plan for its future development and beautification. Three preliminary schemes, showing as many possible locations for a provincial government center, were prepared and submitted. One of these has been tentatively adopted, subject to modification in some details.

COST.

The total cost of the office of the consulting architect for the year, including salaries and wages and all miscellaneous expenses, was ₱92,761.01, a reduction of ₱5,637.26 as compared with the previous fiscal year.

CORPORATIONS.

In a previous report attention was called to the increasing importance of an efficient supervision of the numerous corporations licensed to transact business in the Philippine Islands, and we have to report that some progress has been made toward maintaining a closer check on the status of corporations, both domestic and foreign.

By a ruling of the undersigned, it has been held that foreign insurance corporations must comply with the law pertaining to domestic

insurance corporations in so far as it relates to the amount of their capital stock paid in. Under this ruling no foreign insurance corporation which has not of its capital stock actually paid in an amount equal to the amount of paid-in capital required of domestic insurance corporations is licensed to transact business in the Philippine Islands. The foreign insurance corporations engaged in business under licenses issued prior to this ruling were given until January 1, 1912, to comply with the same, or in lieu thereof to deposit with the insular treasurer cash or approved securities to the amount of ₱100,000 for the benefit of Philippine policy holders. Most of the companies not already in conformity with the ruling took immediate steps to meet it, and the others have made deposits of cash or securities in the insular treasury.

As soon as possible a general insurance law should be enacted by the Legislature, but the subject should be approached with great care and full consideration given to local conditions.

There were licensed to transact business in the Philippine Islands on June 30, 1912, 242 foreign and 500 domestic corporations, of which 100 were nonstock, and 34 religious. During the fiscal year 1912, 250 documents, consisting of articles and amended articles of incorporation, certificates of increase of capital stock, by-laws and amended by-laws, certificates of changes in name, etc., were registered and filed in the division of archives, patents, copyrights, and trade-marks of the executive bureau. The total amount of fees collected for the filing of these documents was ₱6,449. There were authorized and licensed to transact business 144 new corporations, of which 21 were foreign and 123 domestic, 24 of the latter being nonstock corporations.

Amendments have been made to the corporation law, Act No. 1459, by Act No. 2092, amending sections 174 and 182; Act No. 2100, amending sections 82, 83, 85, 88, and 93; and Act No. 2135 amending sections 8 and 17. In the last-named act a scale of fees was provided to be collected for the filing of articles of incorporation and of certificates of increase of capital stock, which has been responsible in great measure for the increased receipts of the division of archives.

MISCELLANEOUS.

MANILA PORT DISTRICT.

By executive order No. 69, series of 1910, the administrative direction of affairs pertaining to the port district to the point where the improvements fall by operation of law under the jurisdiction of the city of Manila, was vested in the secretary of commerce and police. An administrative order was soon issued regulating the character of structures which would be permitted in the district and limiting sawmills, lumber yards, and manufactures involving the use of inflammable materials to a guarded portion of the same.

The development of this district is proceeding as rapidly as conditions will permit. Of the 88 blocks in the port district, on June 30, 1912, final leases had been executed for 5, a bonus had been paid, and leases were pending for 17, 7 had been reserved for the insular government, 5 had been reserved for the United States Army, 9 had been temporarily reserved for the United States Army, and 2 had been reserved for the United States Marine Corps.

PUBLICITY WORK.

By direction of the Governor General, the secretary of commerce and police has been placed in general charge of such publicity work for the islands as it was thought advisable that the government undertake. Until recently no funds were available for this work and little could be done.

Act No. 2058, however, appropriated ₱50,000, expendable only in connection with an equal amount contributed by private persons or firms, for advertising Philippine products and interests in the United States. The Manila Merchants' Association has provided a means for contributing the second ₱50,000, and the combined fund is disbursed by the insular treasurer with the prior approval of the Governor General, after the recommendations of a joint committee of representatives of the government and Merchants' Association have been passed on by the undersigned.

A high-class guide and hand book of the islands, prepared under the direction of this office and received from the printer about January 1, 1912, has been given very general distribution throughout the Far East and the United States; pamphlets and publicity slips are being mailed out by the thousand; Philippine folders and photographs are placed on all Pacific steamers and in hotels along the Chinese and Japanese coasts; a capable publicity man is conducting a vigorous lecture campaign in the United States, and cinematograph films illustrative of the industries and scenic spots in the islands are being prepared for distribution.

PHILIPPINE EXPOSITION.

The Legislature at its 1910-11 session, by Act No. 2023, provided for the holding of an industrial exposition in Manila during 1911 or 1912 in the discretion of the board of directors, of which the secretary of commerce and police was made president. Immediately after the passage of the law the board met and organized and decided to open the exposition on February 3, 1912.

Although the amount of money appropriated was inadequate to meet all the demands made upon the board, with the assistance of the provinces and public-spirited individuals a reasonably complete and very successful exhibition of the products, arts, and industries of the islands was made. The holding of the exposition in connection with the Philippine carnival was very advantageous, as each increased the attendance of the other. The provincial governments displayed the greatest interest and willingness to help, and made such appropriations for that purpose as were justified by their finances.

It is unfortunate that the appropriation was made for but one year. The success of the exposition of 1912 unquestionably justifies the appropriation of public moneys for a continuance of such a display annually in the interest of the commerce of the islands, and it is earnestly recommended that the Legislature determine what amount of money can reasonably be appropriated for the purpose and provide a standing appropriation of that amount. The board will then be able to arrange for permanent grounds and buildings.

WIRELESS TELEGRAPH BOARD.

The question of interisland communication by means of wireless telegraphy has occupied the attention of insular authorities from the early period of American occupation. A number of investigations into the matter have been made, much interdepartmental correspondence has been had on the subject, and in 1906 the Governor General by proclamation withdrew certain lands from sale or settlement for naval wireless sites.

In February, 1910, the matter was brought to an issue through a request of the Navy Department that the President issue an Executive order setting aside the lands which had been withdrawn from sale and settlement by the Governor General as naval reservations for wireless stations, and on April 30, 1910, the President appointed a board of three, representing the Army and Navy of the United States and the insular government, of which board the undersigned was chairman, "to study and make recommendations relating to the construction, operation, maintenance, and management of a system of wireless telegraphy for the Philippine Islands, and as to the relations of the Army, the Navy, and the government of the Philippine Islands and the commercial community to it."

The board thus created has forwarded its report to the Secretary of War. As that report has been printed and is available as a separate complete document, no recapitulation of it is made. It was reviewed and approved by a second board in Washington and finally presented to Congress by the President with his recommendation that the required appropriation for installing a complete wireless system in the islands be provided. To date Congress has not appropriated funds for this purpose, although the entire sum to meet the insular government apportionment of the expense has been made available.

Very respectfully,

CHARLES B. ELLIOTT,
Secretary of Commerce and Police.

To the PHILIPPINE COMMISSION,
Manila, P. I.

REPORT OF THE SECRETARY OF
FINANCE AND JUSTICE.

REPORT OF THE SECRETARY OF FINANCE AND JUSTICE.

DEPARTMENT OF FINANCE AND JUSTICE,
Manila, September 26, 1912.

GENTLEMEN: I have the honor to submit for your consideration the report of the department of finance and justice covering the fiscal year ending June 30, 1912.

JUDICIARY.

SUPREME COURT.

The increase in the business of the supreme court noted the previous year continued in greater proportion during the fiscal year 1912.

There were filed 441 civil and 476 criminal cases, as against 418 and 420, respectively, during the previous year, an increase of 79 cases. More cases were disposed of by the court than during the previous year. There were decided 354 civil and 286 criminal cases, a total of 640, as against 244 civil and 343 criminal cases, a total of 587, for the fiscal year 1911. One hundred and forty-one cases were otherwise disposed of, of which 75 were civil and 66 were criminal, as compared with 117, 50 civil and 67 criminal, for the previous fiscal year.

At the close of the year there were 1,004 cases pending, of which 504 were civil and 500 were criminal, as compared with 868 pending at the beginning of the year, of which 492 were civil and 376 were criminal. Of the cases pending at the end of the year, 18 were submitted, but no decision rendered. There were 676 not ready for hearing on account of briefs not being filed; and 310 ready for hearing were placed on the calendar for July, 1912, an increase of 149 as compared with the number of cases on the calendar at the beginning of the year.

One hundred and thirty-nine candidates for admission to the bar were examined during the year, as against 158 for the preceding year. Eighty candidates passed the examination, as against 61 for the previous year.

Volumes XVII, XVIII, XIX, and XX of the Philippine Reports have been completed and published in English and Spanish during the year. This brings the reports down to December 2, 1911.

The total of the fines, fees, and costs collected by the court during the year was ₱11,071.06, as compared with ₱10,859.96 for the preceding fiscal year.

COURT OF FIRST INSTANCE OF MANILA.

There were pending at the beginning of the fiscal year 1912, 1,118 civil cases. During the year 937 were filed and 798 disposed of, as compared with 814 filed and 688 disposed of during the fiscal year 1911. There remained pending at the close of the year 1,257 civil

cases. Fifty-nine criminal cases were pending at the beginning of the year. During the year 1,397 were filed and 1,388 disposed of, as against 1,125 filed and 1,137 disposed of during the previous fiscal year. There remained pending at the close of the year 68 criminal cases.

There were 26 customs appeal cases pending at the beginning of the year, and during the year 22 were filed and 44 disposed of, leaving 4 cases pending at the end of the year.

The above shows an increase in the number of cases filed, both civil and criminal, and a larger number pending at the close of the year than at the close of the preceding year, notwithstanding that there were more cases disposed of than during the fiscal year 1911. The increase in the number of criminal cases pending is not very considerable, being only 9. The increase in the number of civil cases pending is more noticeable, amounting to 139. In order to remedy this condition, it is the intention of the undersigned to assign a judge at large to the court of first instance of Manila and have him remain on duty there until the close of the year.

The total collections made by the court of first instance of Manila amounted to ₱66,630.57.

COURTS OF FIRST INSTANCE IN THE PROVINCES.

During the year there were filed, including probate cases, 3,881 civil cases, as compared with 3,486 during the preceding year, an increase of 395. Three thousand three hundred and thirty-four cases were disposed of, as compared with 3,643 during the preceding year, a decrease of 309 in the number of cases disposed of. At the close of the year there were pending 2,824 ordinary civil and 2,086 probate cases, a total of 4,910, as compared with 2,351 ordinary civil and 2,012 probate cases, a total 4,363, pending at the beginning of the year, an increase of 547 in the number of cases pending.

There were 7,372 criminal cases filed during the year, as compared with 7,081 during the preceding year, an increase of 291. Six thousand seven hundred and sixty-four criminal cases were disposed of, as against 7,135 during the preceding year, a decrease of 371. The number of criminal cases pending at the close of the year was 2,348, as compared with 1,740 pending at the beginning of the year, an increase of 608 cases.

The above figures show that the increase in the work of the courts noted during the past years has progressively continued during the year under consideration. The large amount of work in the courts of first instance does not permit the judges to give to probate cases the care and attention which they deserve. The delay in disposing of these cases increases year by year. In view of their importance, not only as to the amount of money involved, which in the 10 years from 1901 to 1910 amounted to ₱74,605,705, but also with respect to the desirability of partitioning estates as soon as possible and having the property of minor heirs faithfully administered, it is highly advisable from every point of view that the situation be remedied.

It is undoubtedly true that other causes, aside from the lack of time on the part of the judges, contribute to this delay, such as, for example, the difficulty in appointing administrators who can give sufficient bond, the negligence of the administrators in making inventories and filing accounts, and the apathy of heirs in regard to having estates partitioned, frequently preferring, in view of the nature of the property,

to have the same remain undivided. Nevertheless, these contributing causes would be much lessened if the judges could give more time and attention to probate cases.

It is also true that in the settlement of estates of small value the formalities required by the Code of Civil Procedure cause delay and expense which is wholly unjustifiable. The law should be amended so as to permit the judge in his discretion to omit the appointment of appraisers and the publication in the newspapers when the amount of the estate is small, and there is no danger of anyone's rights being prejudiced by such omissions.

The above conditions demonstrate the need for more judges.

During the year orders were issued for holding special terms at other than the regular places for holding court as follows:

Date of order.	Judge.	Where held.
1911.		
July 10.....	Judge of the district.....	Tigaon, Ambos Camarines.
18.....	do.....	Mambajao, Misamis.
18.....	do.....	Oroquieta, Misamis.
18.....	do.....	Cabadbaran, Agusan.
21.....	do.....	Antimonan, Tayabas.
Aug. 29.....	do.....	Cuyapo, Neuva Ecija.
Sept. 26.....	do.....	Oroquieta, Misamis.
Oct. 13.....	Herbert D. Gale, judge at large.....	Malaybalay, Agusan.
Nov. 20.....	Judge of the district.....	Banaue, Mountain.
20.....	do.....	Lubuagan, Mountain.
20.....	do.....	Cervantes, Mountain.
Dec. 6.....	do.....	Tagudin, Mountain.
9.....	Isidro Paredes, judge at large.....	Aparri, Cagayan.
27.....	Judge of the district.....	San Pablo, Laguna.
		Ormoc, Leyte.
1912.		
Jan. 12.....	Herbert D. Gale, judge at large.....	Zaragoza, Neuva Ecija.
16.....	Judge of the district.....	Tanculan, Agusan.
16.....	do.....	Misamis, Misamis.
16.....	do.....	Oroquieta, Misamis.
24.....	Herbert D. Gale, judge at large.....	San José, Nueva Ecija.
26.....	Judge of the district.....	Malabang, Moro.
Feb. 24.....	Herbert D. Gale, judge at large.....	Cuyapo, Neuva Ecija.
24.....	Judge of the district.....	Virac, Albay.
Mar. 25.....	do.....	Daet, Ambos Camarines.
25.....	do.....	Tigaon, Ambos Camarines.
Apr. 30.....	do.....	Mambajao, Misamis.
May 15.....	do.....	Tanculan, Agusan.
15.....	do.....	Oroquieta, Misamis.
June 3.....	Chas. S. Lobingier, judge, Manila district.....	Banaue, Mountain.
3.....	do.....	Lubuagan, Mountain.
3.....	do.....	Cervantes, Mountain.
3.....	do.....	Tagudin, Mountain.

In addition to the above, orders were issued directing judges at large to act in various districts, as follows:

Date of order.	Judge.	District to which assigned.
1911.		
Sept. 26.....	Isidro Paredes.....	Sixth.
Sept. 29.....	Higinio Benitez.....	Fifth.
Oct. 5.....	do.....	Sixth.
Oct. 12.....	Herbert D. Gale.....	Fourth.
Oct. 13.....	do.....	Thirteenth.
Do.....	Higinio Benitez.....	Seventh.
Nov. 11.....	George N. Hurd.....	Thirteenth.
Dec. 15.....	Herbert D. Gale.....	Fourth.
1912.		
Jan. 24.....	George N. Hurd.....	Fleventh.
Jan. 27.....	Isidro Paredes.....	Third.
May 7.....	do.....	Sixth.
May 15.....	George N. Hurd.....	Fleventh.
June 28.....	Higinio Benitez.....	Ninth.

Orders were also issued directing regular judges to act in other districts, as follows:

Date of order.	Judge	Regular district.	District to which assigned.
1911.			
July 1	José C. Abreu.....	Sixteenth.....	Twelfth.
31	Richard Campbell.....	Mountain.....	Sixth.
1912.			
Feb. 14	John S. Powell.....	Ninth.....	Fifteenth.
Apr. 19	José C. Abreu.....	Sixteenth.....	Do.
30	Chas. S. Lobingier.....	Manila.....	Mountain.
May 24	José C. Abreu.....	Sixteenth.....	Fifth.
27	Simplicio del Rosario.....	Manila.....	Seventh.
29	Mariano Cui.....	Seventh.....	Sixteenth.

The collections made by the courts of first instance in the provinces during the fiscal year amounted to ₱136,332.37, as compared with ₱158,627.94 in 1911.

COURT OF LAND REGISTRATION.

During the year 774 applications were filed, this being 209 less than during the preceding year. Of these applications, 10 were filed by the insular government, 10 by provincial governments, 156 by municipal governments, and 3 by the city of Manila, a total of 179. The greater number of applications presented during the fiscal year 1911 was to a great extent a result of the reservation proceedings. Only 363 applications were presented during that year which may unconditionally be termed voluntary proceedings on the part of individuals, while during the year 1912 the number of such voluntary applications presented shows a material increase, there being 595 that may be so considered.

The 774 applications filed during the year represent receipts to the amount of ₱47,032.20, and involve property to the value of ₱14,860,440.48, while the 983 cases begun during the preceding year represented receipts to the amount of ₱48,346.54, and property to the value of ₱7,850,548.96, or approximately one-half of the property value of the cases filed during the fiscal year 1912. The proportional increase in receipts and property value involved is due to the tendency to embody in one application a greater number of parcels of land than has heretofore been customary.

The business transacted by the court during the year, and also the status of all cases filed to June 30, 1912, is shown by the following table:

Fiscal year 1912.	Con-firmed.	Denied.	Dis-mitted.	Total.
Final disposition made.....	754	20	54	828
Decided, but subject to appeal.....	50	1	6	57
Appealed to supreme court.....	26	3	1	30
Total year's business.....	830	24	61	915
Previous appeals pending.....	46	6	5	57
Prior final disposition made.....	5,934	239	555	6,728
Total business transacted.....	6,810	269	621	7,700
Pending on the dockets.....				548
Total cases June 30, 1912.....				8,248

Of the 8,248 cases filed from the organization of the court to June 30, 1912, 2,226 involved property in the city of Manila to the value of ₱47,543,391.35; and 6,022 applications represented property in the provinces of the value of ₱53,143,139.68, a total value of property involved of ₱100,686,531.03.

During the year final decrees were issued in 1,252 cases, there being 1,434 decrees, involving 2,575 parcels, with a total area of 470,479,164 square meters. The total number of cases in which decrees have been issued by the court from its organization to June 30, 1912, was 6,357, involving parcels of land with a total area of 3,391,711,869 square meters.

The total number of cases in which decrees were issued does not agree with the number of cases finally disposed of, as shown by the preceding table, due to the fact that corrections in plans and surveys are frequently ordered in the final decision, and for this reason there are many cases decided in which decrees were not issued, and decrees may be issued one year corresponding to cases decided the preceding year.

In the report of this department for the fiscal year 1911, special attention was invited to the result of the proceedings in Case No. 6692, entitled "*The Director of Lands v. Numeriano Abalos et al.*," a case brought under the provisions of section 61 of the public land act, and which was to all intents and purposes a cadastral project, clearly showing the advantage of the cadastral system of registration. A bill providing for such system of registration was passed by the Philippine Commission in the last two sessions of the Legislature, but failed to become a law. The Commission, using its legislative power over the territory occupied by non-Christian tribes, passed act No. 2075, entitled "*An act providing certain special proceedings for the settlement and adjudication of land titles in the Moro Province, the Mountain Province, the Province of Agusan, and the Province of Nueva Vizcaya.*" This act is substantially the same as the bill which was passed by the Commission and submitted to the Assembly for concurrence affecting the territory under the jurisdiction of the Philippine Legislature.

The first case brought under the above-mentioned act was case No. 7880. I extract the following from the report made thereon by Associate Judge Jesse George, of the court of land registration:

The case as originally published was based on the cadastral survey of the town site of Zamboanga, made by the bureau of lands in 1909, including the entire town of Zamboanga and an extensive area of rich, cultivated agricultural land surrounding it, amounting in all to over 2,000 hectares. The original survey showed some 1,800 parcels, but owing to the sales, partitions, and subdivisions made during the three years since the survey, the corrected plans showed 2,088 parcels, of the value of almost ₱2,000,000. The trial of the case was begun on January 22, on which date the various parcels were assigned for hearing in the order of their cadastral numbers, an average of 50 parcels being assigned for each day. The hearing was finished on March 30, 2 months and 10 days, on 2,088 parcels of land, or as many as were decreed by the court in the first four years of its existence. Most of the lots registered were small parcels, the homes and holdings of poor people who have been unable to have their lands registered under Act No. 496 because of the expense. Of the whole number of parcels only 320 were of more than ₱500 in value, 1,113 were of ₱200 or less, and 200 parcels were of less than ₱50 in value. The costs have been apportioned among the lots according to values, in some cases running as low as ₱2.50, including the certificate, to be paid in five equal annual installments. The cost for the most valuable parcel under this apportionment was only ₱16.

The result of the case above referred to fully corroborates the views of the undersigned expressed in his annual report for the fiscal year 1911 as to the advantage of the cadastral system of registration, and is the strongest argument for the passage of an act by the Philippine Legislature similar to Act No. 2075 enacted by the Commission for the non-Christian territory.

COST OF MAINTAINING THE JUDICIARY AND CODE COMMITTEE.

The following figures show the cost of maintenance of the judiciary and the code committee for the past fiscal year:

	Judiciary.	Code committee.
Total expenses.....	P955,814.19	P73,142.21
Receipts from operations.....	204,494.06	2.58
Net expenditures.....	751,320.13	73,139.63

JUSTICE OF THE PEACE COURTS.

Pursuant to the provisions of Act No. 2041, examinations for justices of the peace have been held in all the provinces, with the exception of the city of Manila, in conformity with the rules and regulations prepared by the attorney general's office, with the approval of the secretary of finance and justice. Fourteen hundred and twenty candidates took the examinations, 1,043 of whom passed. A sufficient number of eligibles to fill the positions of justices of the peace have not been secured in the Provinces of Bohol, Isabela, Misamis, and La Union. This deficiency has, however, been properly provided for by permitting justices of the peace appointed prior to the passage of Act No. 2041 to continue to hold their respective offices until their successors are duly appointed and qualified. It is expected that on January 13, 1913, other examinations for justices of the peace will be held in all the provinces.

During the year 333 justices of the peace and 94 auxiliary justices of the peace were appointed; 6 and 11, respectively, declined appointment; 97 and 138 resigned; 213 and 52 were relieved from office, not having qualified under Act No. 2041; and 5 and 5 died. Charges were brought against 24 justices and 10 auxiliary justices of the peace, of whom 17 and 8, respectively, were suspended pending final decision; 2 and 3 were removed and disqualified; 15 and 6 were removed; 4 justices were required to resign or resignation accepted; 1 and 1, respectively, were reprimanded, disciplined, or suspended; and 2 justices were found not guilty. Of the justices of the peace and auxiliary justices removed, 2 and 1, respectively, were qualified under Act No. 2041, and of the justices of the peace required to resign, 1 had the qualifications prescribed by said act.

At the present time there are 513 justices of the peace and 90 auxiliary justices qualified and holding office under the provisions of Act No. 2041; 103 justices and 354 auxiliary justices not so qualified who have been continued in office, and 13 justices and 37 auxiliary justices who have been given temporary appointments without being qualified under said act.

It has not been possible to secure accurate reports of the work of the justices of the peace, owing doubtless to the many changes in the personnel of the courts consequent upon their reorganization under Act No. 2041. Judging, however, from the reports received and comparing them with those of the preceding year, it appears that the work of the courts has both increased and improved. The larger jurisdiction conferred upon justices of the peace of the capitals of provinces and upon provincial governors acting as justices of the peace, permitting them to hear matters of lesser importance originally cognizable by the court of first instance, has proved to be a great relief to the judges of the courts of first instance.

The total administrative expenses of the justice of the peace courts for the past fiscal year were ₱485,914.67; the income from fees, fines, etc., ₱263,258.55, leaving the net cost of administration ₱222,656.12.

BUREAU OF JUSTICE.

The legal work performed by the bureau of justice during the fiscal year, as compared with the previous fiscal year, is shown in condensed form in the following summary:

	1911	1912
Cases in the supreme court in which briefs and arguments were presented.....	252	266
Cases in the supreme court in which that office appeared by motion.....	29	61
Cases in the court of land registration in which that office appeared and opposed registration.....	554	536
Cases in the court of land registration examined but no opposition presented.....	410	604
Cases conducted in the courts of first instance.....	266	118
Written opinions rendered by the attorney general to the Chief Executive, heads of departments, bureau chiefs, and other officials.....	212	225
Applications for loans submitted by the Agricultural Bank for examination of title papers.....	79	170
Mortgages involving loans to the amount of ₱221,303, titles in which were examined....	61	69

The attorney general took charge of and administered the estates of 27 deceased American employees and took preliminary steps pending the appointment of an administrator by the court in 4 estates. There were collected on account of estates administered ₱35,647.92, while the disbursements amounted to ₱31,436.82, leaving a balance on hand June 30, 1912, of ₱4,211.10 to the credit of 21 estates pending settlement.

Some difficulty has been encountered in the past in the embalming and shipping of remains to the United States. During the past year arrangements were effected with the military authorities whereby the remains of deceased government employees are embalmed by the United States Army morgue officials, by whom arrangements are also made for funerals or shipment to the United States, as the case may be. These services are rendered at cost, thereby materially reducing the charges against estates.

The attorney general has called attention to the fact that in some instances the estates of deceased government employees may not have sufficient funds with which to defray the expenses in connection with the disposition of the remains. It is suggested that to meet such contingency a special insolvent estate fund be created by the retention of a small percentage from the assets of all estates in which the net proceeds exceed ₱500, which, with a small original refundable appropriation, could be carried in the insular treasury as

a trust fund. Such arrangement would be entirely equitable in view of the fact that no fees are charged by the attorney general for the administration of the estates of deceased government employees.

The total expense of maintaining the bureau of justice for the year was ₱144,470, the receipts from operation ₱1,225, leaving the net expenditures ₱143,245.

PROSECUTION OF CRIMES AND THE WORK OF THE PROVINCIAL FISCALS.

The question of the administration of justice in criminal matters has attracted the attention of the public, and it has become a topic of general discussion during the last few months. The consensus of opinion has been favorable to the work done by the provincial fiscals. Attention has, however, been drawn to the fact that the ratio of convictions is low and that there are a great number of acquittals and dismissals due to the inefficiency of the prosecuting officers. Statistics covering all criminal cases during the quinquennium 1906-1911 show the yearly ratio of convictions during said period to be 46 per cent as the minimum, 81 per cent as the maximum, with a general average of 65 per cent; the yearly ratio of acquittals to be 7 per cent as the minimum, 26 per cent as the maximum, with a general average of 17 per cent; and the yearly ratio of dismissals to be 2 per cent as the minimum, 40 per cent as the maximum, and 18 per cent as the general average. Excluding the number of cases dismissed, which in reality were never tried, the ratio of convictions is 69 per cent as the minimum, 91 per cent as the maximum, with a general average of 80 per cent; and that of acquittals 9 per cent as the minimum, 31 per cent as the maximum, and 20 per cent as the general average.

If we take into consideration the circumstances upon which the successful prosecution of a crime may depend, the above results may be considered very satisfactory.

The manner in which crimes are investigated in the first place must be taken into consideration. It is not possible for the provincial fiscal to go to each and every one of the municipalities of the province, particularly when court is in session, for the purpose of personally conducting preliminary investigations. The law imposes upon justices of the peace the duty of conducting preliminary investigations, although the provincial fiscal in important cases usually intervenes. Upon conclusion of the preliminary investigation the justice of the peace forwards to the courts of first instance a summary of the testimony of the witnesses. The provincial fiscal must in the majority of cases rely on such summary, which often does not faithfully show the testimony of the witnesses; and in many cases, although the summary may be reliable, the witnesses change their testimony when examined by the fiscal before the trial or when put upon the witness stand. This naturally increases the number of dismissals and acquittals without any fault whatever on the part of the fiscal. The number of dismissals is also increased by the fact that in accordance with General Orders, No. 58, and Act No. 194, a justice of the peace is required to bind the accused over to the court of first instance whenever he finds reasonable grounds to believe that the crime was committed by him, while the court of first instance under the

law can not convict the accused unless his guilt is shown beyond a reasonable doubt. Differences of opinion between the provincial fiscal and the judge of the court of first instance as to the interpretation of penal statutes are also responsible in not a few cases for unsuccessful prosecutions. The unwillingness of witnesses for the prosecution to appear, in order to avoid making enemies and because the law makes no provision for per diems or traveling expenses, the ignorance of witnesses and the fact that they nearly always testify through an interpreter, are also factors which work against the securing of convictions, as is also the disloyalty of the offended party and his witnesses, which is sometimes manifested at the most critical moments during the progress of the trial. Should the offended party effect a compromise and the prosecution not consent to the dismissal of the case, the result is generally unfavorable to the prosecution. Any testimony given by the offended party and his witnesses in the preliminary investigation which is contrary to that with which he tries to favor the accused can only be used at best to impeach the witness, and the court invariably follows the well-settled doctrine that any reasonable doubt should be resolved in favor of the accused.

The fiscal files his complaint, having heard only the evidence for the prosecution and without having had an opportunity to examine the evidence for the defense. He is required to file a complaint if from his investigation it appears that there is evidence sufficient to procure a conviction. On the other hand, the judge decides the case after having heard the evidence for the defense, which may overcome the evidence for the prosecution, and only finds against the accused when his guilt is clearly proved. The presumption of innocence is always in favor of the accused. Due to this, even where the fiscal is most zealous and able, it is not always possible to obtain convictions.

The Code of Criminal Procedure also contains many precepts which favor the defendant, such as the one providing that the court may at any time before judgment upon a plea of guilty permit it to be withdrawn and a plea of not guilty substituted. The law also establishes many causes for a dismissal, as, for instance, the death of the accused pending trial, the marriage of the accused to the offended party in case of abduction, seduction or rape, the prescription of the crime, the discharge of the accused for the purpose of being used as a witness for the prosecution, former jeopardy, etc. Dismissals due to these causes have no bearing on the ability of the prosecuting officer.

The former secretary of finance and justice, the Hon. Henry C. Ide, and the Hon. James F. Smith, acting secretary of finance and justice, in their annual reports commended the work of the provincial fiscals, considering it on the whole very satisfactory. I take pleasure in ratifying the remarks of my predecessors, and desire to add that with the experience gained by the fiscals during the past year it may be said that they have become more familiar with American criminal procedure and that their work is becoming more and more efficient. With few exceptions they are able to speak and write the English language, and those who can not do so are at least able to read English textbooks intelligently.

BUREAU OF THE TREASURY.

PERSONNEL.

On April 10, 1912, Mr. Jeremiah L. Manning, assistant insular treasurer, was appointed insular treasurer, vice John L. Barrett, resigned. On the same date Mr. Robert C. Baldwin, disbursing officer of the municipal board of the city of Manila, was appointed assistant insular treasurer.

FINANCIAL STATEMENT.

The following statement shows the balances on hand at the close of the fiscal year 1911, the receipts, withdrawals, and currency exchanges during the fiscal year under consideration, and the balances on hand at the close of business on June 30, 1912:

General funds:

Balance on hand at close of business June 30, 1911 ₱31,935,585.68
 Receipts for fiscal year, account of—

Customs.....	₱7,216,489.67	
Internal revenue.....	12,933,308.97	
Miscellaneous.....	4,489,990.75	
City of Manila.....	3,461,022.82	
Repayments.....	9,764,310.24	
Gold standard fund.....	1,268,603.16	
Trust funds.....	18,091,069.80	
Currency exchanges.....	63,529,220.54	
		<u>120,754,015.95</u>

Total..... 152,689,601.63

Withdrawals for fiscal year, account of—

Check vouchers paid.....	₱60,746,166.61	
Currency exchanges.....	63,529,220.54	
		<u>124,275,387.15</u>

Balance on hand June 30, 1912..... 28,414,214.48

Depository accounts:

Balance on hand at close of business June 30, 1911. ₱10,357,676.95

Deposits during the fiscal year..... 97,990,803.99

Total..... 108,348,480.94

Withdrawals during fiscal year..... 97,087,304.39

Balance on hand June 30, 1912..... 11,261,176.55

Certificate redemption fund:

Balance on hand at close of business June 30, 1911. ₱27,339,909.50

Certificates issued during
 fiscal year..... ₱16,285,000.00

Certificates retired during
 fiscal year..... 14,798,578.50

Net amount issued during fiscal year..... 1,486,421.50

Balance in fund at close of business June 30, 1912..... 28,826,331.00

Total of funds for which insular treasurer was accountable at
 close of business on June 30, 1912..... 68,501,722.03

This balance was distributed as follows:

	United States currency.	Philippine currency.
In treasury vaults.....	\$2,651,683.41	₱34,423,897.22
In treasury vaults, certified checks on local banks.....		821,048.64
On deposit with local banks on open account.....		6,157,290.83
Time deposits with local banks.....		1,017,250.60
On deposit with authorized depositories in the United States.....	10,389,433.96	
Total.....	13,041,117.37	42,419,487.29
Grand Total.....		26,082,234.74
		68,501,722.03

The "general funds" balance of ₱28,414,214.48 in the foregoing statement includes the balances of various trust funds and is made up as follows:

Gold standard fund.....	₱15,745,022.67
Friar lands bonds sinking fund.....	444,949.32
Manila sewer and waterworks construction bonds fund.....	306,385.27
Manila sewer and waterworks construction bonds sinking fund.....	198,874.50
Money order funds.....	830,357.98
Constabulary pension and retirement fund.....	48,307.26
Assurance fund, Act No. 496.....	30,105.43
Insurance fund, Act No. 1728.....	15,424.97
Fidelity bond premium fund.....	122,684.33
Public works and permanent improvement bonds sinking fund.....	58,807.01
Postal Savings Bank funds.....	519,035.21
Insurance fund, city of Manila.....	2,842.14
General fund.....	¹ 10,091,418.39
Total.....	28,414,214.48

The "depository balance" of ₱11,261,176.55 in the same statement is made up of the following accounts:

Agricultural Bank.....	₱142,205.15
American Bank in liquidation.....	5,536.21
Cavite electric light franchise, section 2, Act No. 667.....	1,000.00
Fourth of July fund.....	1,068.78
Insular disbursing officers.....	3,485,820.68
Memorial monument fund, Act No. 1840.....	255.52
Treasurer of the United States.....	2,435,420.22
Trust funds, section 11, Act No. 1510.....	56,884.00
United States disbursing officers.....	5,082,510.20
Marinos Mercantes in liquidation.....	289.23
Overage account.....	186.56
Guarantee deposit of Manila Gas Co., Act No. 2039.....	50,000.00
Total.....	11,261,176.55

INTEREST COLLECTED.

The total amount of interest received during the year on government funds deposited in the United States and in the Philippine Islands was ₱918,069.25, which was ₱20,205.46 less than that received during the preceding fiscal year. This falling off is accounted for by the fact that during the fiscal year under consideration no deposits have drawn interest at a higher rate than 3 per cent per

¹ Includes Rizal monument fund, outstanding liabilities, and such other funds as are not accounted for separately on the books of this bureau.

annum, while during the first eight months of the fiscal year 1911 amounts on fixed deposit, varying from \$3,000,000 to \$11,000,000, drew interest at $3\frac{1}{2}$ per cent, and some small amounts at 4 per cent.

FIDELITY BOND PREMIUM FUND.

During the past year shortages were paid amounting to ₱33,466.36, as compared with ₱15,149.31 during the previous year. This fund now amounts to ₱464,525.27, and it is believed that its annual earnings in the near future will be more than sufficient to meet any defalcations likely to occur.

Based on the rates charged by the surety companies prior to the inauguration of the present system on January 1, 1908, the Government would have paid such surety companies during the past four and one-half years over ₱350,000. The total shortages paid during that period have been less than ₱63,000, and the cost of operation less than ₱28,000. These figures forcibly demonstrate the economy of the present system.

On January 1, 1912, the rate of premium charged was reduced from 1 per cent to three-fourths per cent per annum, and on July 1, 1912, the rate was still further reduced to one-half per cent. The total of all bonds in effect January 1, 1912, was ₱8,337,750.

The recommendation made in my report for the fiscal year 1911 regarding the desirability of legislation permitting this fund to bear its own expenses, now paid from the appropriation for the treasury bureau, is renewed.

BANKS AND BANKING.

Agricultural Bank.—The amount loaned by the bank during the year was a little less than that loaned during the preceding fiscal year, the figures being ₱221,303 and ₱230,450, respectively. The number of applications was 170, and the number of loans made 69, as compared with 123 and 61, respectively, for the previous year. Sixteen loans amounting to ₱44,319 were repaid. No foreclosure proceedings were instituted during the year. The great majority of borrowers are prompt in meeting their interest obligations, although there is at the present time a rather large amount of interest delinquent, ₱5,698.76, principally due to the protracted drought throughout the islands and consequent loss of crops.

At the close of the year there were outstanding loans amounting to ₱655,203. The profit and loss account on June 30, 1912, showed the net profits to be ₱52,950.87.

On October 1, 1911, the rate of interest charged the borrowers was reduced from 10 to 8 per cent on loans secured by mortgage on property registered under the land registration act.

One agency of the bank was established in 1909, 12 in January, 1912, and 7 in June, 1912, too late to open for business in this fiscal year. At present these agencies are only accepting current accounts, and these solely for the convenience of the local merchants and the public. Only one of the agencies established in January, 1912, has failed to secure depositors. In all other agencies the privileges offered were enthusiastically welcomed. At the end of the present fiscal year the 12 agencies actually doing business had a total deposit balance of ₱92,749.28.

This is the first year in which salaries of the employees of the bank have been paid by the bank. Formerly they were paid out of the regular appropriation for the treasury bureau.

Private banks.—A comparative consolidated statement of the resources and liabilities of all the commercial banks in the islands at the close of business on June 30 for the years 1911 and 1912 shows the following:

	1911	1912	Increase.	Decrease.
Total resources.....	P49,115,393.72	P71,771,455.70	P22,656,061.98	.....
Loans and discounts.....	7,415,454.04	11,262,039.79	3,846,585.75	.....
Overdrafts.....	18,189,289.22	23,922,392.39	5,733,103.17	.....
Current accounts.....	14,434,010.49	18,704,471.37	4,270,460.88	.....
Fixed deposits.....	10,349,317.98	10,127,432.50	.....	P221,885.48

American Bank in liquidation.—The last of this bank's assets have been converted into cash, a final report rendered to the court, and the receivership will shortly be terminated. Dividends have been declared to the amount of 53 per cent.

BOND ISSUES.

During the year authority was given to the Philippine Railway Co. to issue bonds to the amount of \$275,000, and to the Manila Railroad Co. to the amount of \$1,940,000, against completed portions of their lines.

The total issue of the Philippine Railway Co. now amounts to \$8,382,000, and of the Manila Railroad Co. \$4,936,000. The annual liability of the government on account of its guaranty amounts to P1,065,440 Philippine currency.

GOLD-STANDARD FUND.

Under Act No. 2083, passed December 8, 1911, the gold-standard fund has a fixed status, namely, 35 per cent of the coinage of the Philippine Islands in circulation or available for circulation, the surplus to be transferred to the general fund. The sum of P3,397,027.65 has been so transferred during the year and made available for appropriation. This act also authorizes the loaning of the investment portion of this fund, which had theretofore been kept on deposit in banks in the United States and in Manila, to provinces and municipalities for public works and permanent improvements, and to the Manila Railroad Co. to complete certain sections of railroad. Under this provision P2,013,700 has been loaned to provinces and municipalities, and P200,000 to the Manila Railroad Co.

The amount of exchange sold on New York during the year was P24,403,118.08, as compared with P27,725,387.60 for the year ending June 30, 1911.

Demand drafts and telegraphic transfers sold during the year by the insular treasurer on provincial treasurers and vice versa amounted to P3,086,128.70, an increase of P512,936.14 over the preceding year.

The net income of the fund for the year on account of the sale of exchange and interest on deposits and loans was P926,877.39, an increase of P10,105.40 over the preceding year. On June 30,

1912, the gold-standard fund amounted to ₱18,271,940.77, being ₱2,345,814.79 less than it was on June 30, 1911. Adding to this balance the surplus of ₱3,397,027.65 which was transferred to the general fund during the year under Act No. 2083, more than makes up for this decrease.

CIRCULATION.

From July 1, 1903, to June 30, 1912, the exports of Spanish-Filipino and Mexican coins amounted to pfs. 33,670,234.30. It is estimated that pfs. 350,000 still remain in the islands.

About 90 per cent of the silver currency of the first coinage has been returned and recoined. During the past fiscal year ₱278,000 was withdrawn from circulation and forwarded to the San Francisco Mint for recoinage. It is calculated that ₱2,500,000 of the first coinage are still in circulation in the islands.

The total silver coinage of the present weight and fineness already received from the United States mint amounts to ₱49,202,832.67.

Silver certificates to the amount of ₱28,826,331 were in circulation on June 30, 1912, and ₱13,034,000 in the treasury vaults on the same date. During the year mutilated and worn silver certificates were destroyed to the amount of ₱7,126,578.50.

The insular treasurer has received and issued to the Bank of the Philippine Islands (formerly the Banco Español-Filipino) for circulation notes to the amount of ₱5,327,500.

The total amount of money in circulation in the islands on June 30, 1912, was ₱52,055,892.97, being ₱3,900,305.82 more than it was on the same date in 1911.

EXPENSES OF CONDUCTING THE BUREAU.

The total expenditures for the bureau during the fiscal year amounted to ₱114,834.57, as compared with ₱123,104.30 for the preceding fiscal year.

BUREAU OF CUSTOMS.

GENERAL TRADE CONDITIONS.

Trade conditions, as indicated by the customs statistics for the past year, continue to improve. The total commerce between the islands and other countries during the year reached a total value of \$104,-869,816, an increase of 17 per cent over that of the previous year.

The total trade figures for the past two years are given below:

	Fiscal year 1911.	Fiscal year 1912.	Increase in 1912.
Total imports.....	\$49,833,722	\$54,549,980	\$4,716,258
Total exports.....	39,778,629	50,319,836	10,541,207
Total trade.....	89,612,351	104,869,816	15,257,465

The above table shows a larger increase in exportations than in importations. The most encouraging feature of the growth of exports is the fact that domestic products exported have shown

generally not only a large increase in volume, but a tendency toward improvement in quality, resulting in substantially higher prices.

The balance of trade against the islands was this year \$4,230,144, as compared with \$10,055,093 for the preceding year. The difference, \$5,824,949, may be taken as an indication of the commercial progress made during the year. This unfavorable balance of trade is more apparent than real, as the figures showing the total imports include importations by the United States Army and Navy, the Government of the Philippine Islands and the local railway companies, and also large quantities of supplies brought in by commercial importers under contract with the various departments of the Federal and Philippine Governments, which importations do not constitute a burden upon the resources of the country.

Trade with the United States, both imports and exports, has increased during the year. Forty per cent of the total commerce of the islands the past year was with the United States, imports reaching 38 per cent and exports 43 per cent of the respective totals, as compared with 40, 39, and 42 per cent, respectively, for the previous year. Leaving aside rice importations, the entire increase in the import trade for the year was absorbed by the United States, and in addition 35 per cent of that trade was diverted from other countries.

IMPORTS.

All kinds of imported merchandise, except cotton, coal, and live cattle, show an increase in value. Rice ranks first among the imports this year, taking the place of cotton goods, which has long headed the list. The total value of the rice imported was \$10,569,949, while during the preceding year the importations of this commodity were valued at \$6,560,630, an increase of \$4,009,319, to which is largely due the increase in importations, the increase in the value of other imports being \$706,939.

Cotton goods rank second among imported articles. The value of the importations of this commodity dropped from \$10,305,017 in 1911 to \$9,246,595 in 1912. The greatest loss in this trade was sustained by the United Kingdom, importations from that country falling off more than \$1,000,000, or 32 per cent. Importations from the United States and British East Indies slightly increased, while the increase from Japan has been 49 per cent. Among the other countries supplying these goods the loss in trade has been general.

The United States continues at the head of the list of countries sending merchandise to these islands, with importations of \$20,604,155, as compared with \$19,818,841 in 1911. As in the previous fiscal year, next come the French East Indies with importations of \$9,575,741, as compared with \$7,415,881. The United Kingdom takes third place, with importations to the value of \$5,509,773. Japan follows with \$3,234,714, forcing Australasia from fourth to fifth place; then come Germany, China, British East Indies, France, Spain, and Hongkong in the order named.

Notwithstanding the largely increased importations from the United States consequent upon the passage of the tariff act of 1909, importations from all other countries show a steady increase since that year, and exceeded during the year 1912 those of 1911 by nearly \$4,000,000.

Importations from all countries except the United Kingdom, China, and Spain have increased, the most notable increases being made by Japan, the French East Indies, and the British East Indies, the importations from the two last mentioned having been chiefly augmented by the large importations of rice.

EXPORTS.

The increase in exports is largely due to the encouraging increase in the output of copra. Shipments of this product during the fiscal year 1912 amounted to 169,342 tons, valued at \$16,514,749, at an average value per ton of \$97.52, as compared with 115,602 tons, with a value of \$9,899,457, at an average value per ton of \$85.63, in 1911. The demand for this product is increasing, and the new and profitable uses to which it is being put has resulted in a steady improvement in prices. The remarkable increase in the demand from the United States during the year 1911, when shipments were more than double those of 1910, continued during the year 1912, which witnessed the shipment of twice the quantity for 1911, and the increase in price brought the total value up to a sum representing 227 per cent of the value for the preceding year.

Hemp, which heretofore has always held first place among exported articles, has yielded this position to copra. The total shipments of hemp for the year were 153,987 tons, as compared with 165,650 tons in 1911, a decrease of 11,663 tons. The value, however, has risen from \$16,141,340, at an average value of \$97.44 per ton, in 1911, to \$16,283,510, at an average value of \$105.75 per ton, in 1912. Shipments to the United States have increased, however, in both quantity and value, amounting to 69,574 tons, with a value of \$7,751,489, as compared with 66,545 tons, valued at \$7,410,373 in 1911.

A comparison of the average value per ton of hemp exported shows a decided increase during the year, as compared with 1911. The increase, however, in the price of this commodity shipped to the United States was insignificant. Shipments to European countries, which heretofore have consisted largely of the poorer qualities, have this year included a greater proportion of the finer grades. So it is that with a larger proportion of the better grades at an advanced value, and a falling off in shipments of the poorer qualities, the total exports of hemp show an increase in value despite a considerable reduction in quantity.

The exportation of raw sugar during the year 1912 amounted to 186,016 tons, valued at \$10,400,575, as compared with 149,376 tons, valued at \$8,014,360 during the year 1911, exceeding in quantity and value that of any year since the American occupation. The average value per ton was \$55.91, greater than any year since the passage of the so-called Payne Bill. The principal demand for sugar continues to come from the United States, whose purchases amounted during the year to 161,783 tons, valued at \$9,142,833, at an average price of 156.51, as compared with 128,926 tons, with a value of \$7,144,755 in 1911, at an average value per ton of \$55.42. These figures show that the increase in the exportation of this product to the United States is more than the increase in the total exports during the year. On the other hand, exports to other countries have fallen off.

There is an increase in the production of cigars, although the number exported during the year is still below that for the fiscal year 1910. There were 175,320,000 exported during the year 1912, valued at \$2,660,061, at an average value per thousand of \$15.17, as compared with 132,217,000, valued at \$1,700,712, at an average value per thousand of \$12.86 in 1911. Exportations to the United States amounted to 71,973,000, valued at \$1,619,326, at an average value per thousand of \$22.50; as compared with 27,936,000, valued at \$717,907, at an average value of \$25.70 per thousand, for 1911. These figures show that the entire increase in the exportation of cigars for the year was practically absorbed by the United States.

The exportation of cigarettes shows a slight increase. There were exported during the year 34,955,000, valued at \$32,488, at an average price of \$0.90 per thousand, as compared with 33,662,000, valued at \$36,132, at an average price of \$1.07 per thousand, for the fiscal year 1911. Exportations of this product to the United States have decreased, being 5,064,000, valued at \$10,613, at an average value of \$2.09, as compared with 8,659,000, valued at \$15,393, at an average value of \$1.78, for 1911.

In addition to the figures given above, there were taken on board outgoing vessels as ship's stores 948,315 cigars and 47,500 cigarettes.

There was an increase in both the quantity and value of leaf, smoking, and other manufactured tobacco exported. An improvement is noticed also in the price, compared with that for the fiscal year 1911. The exportation of these other tobacco products amounted to 12,548 tons, valued at \$1,902,644, at an average value per ton of \$151.63, as compared with 12,487 tons, valued at \$1,868,723, at an average value per ton of \$149.65. The amount of these products exported to the United States is very insignificant: Five tons, valued at \$1,607, at an average value of \$316.71, as compared with 14 tons, valued at \$8,472, at an average value of \$585.85 per ton, for 1911.

Exports other than those already mentioned were valued at \$2,525,809. Among these miscellaneous items of export, the largest is knotted hemp, with a value of \$615,769. This is a product consisting of specially selected threads of hemp knotted together into long filaments and shipped principally to Italy, France, and Switzerland, where it is woven into fine textiles. Other miscellaneous items are: Native hats, valued at \$502,843; maguoy, \$320,791; shells, \$286,818; native cloths, \$182,418; ilang-ilang oil, \$80,879; and native timber, \$71,794.

There is still considerable latitude for the development of the sugar and tobacco industries in the islands before the limitations placed upon the free importation of these products into the United States is reached. Sugar shipments have reached 55 per cent of the free limit and cigars 46 per cent.

The United States continues at the head of the countries receiving goods from the Philippine Islands, the total amount exported to that country during the year 1912 being \$21,517,777, as compared with \$16,716,956 for the year 1911, the largest amount exported from the islands since the establishment of free trade. France, with exportations to that country of \$10,071,013, as compared with \$6,685,323 for the previous fiscal year, now occupies second place, forcing the United Kingdom to third place, exportations to that country being reduced from \$7,547,706 during 1911 to \$7,481,587 for the year 1912. Spain

continues to occupy fourth place, exports to that country having increased from \$2,178,730 during the fiscal year 1911 to \$2,485,661 in 1912. Then follow in order Germany, Belgium, Japan, British East Indies, and Hongkong. Exportations to this last-mentioned country have been decreasing in marked degree from year to year. From \$2,438,438 in 1908 they have fallen off to \$994,649 in 1912.

CUSTOMS COLLECTIONS AND EXPENDITURES.

The gross collections of the bureau during 1912 were \$9,347,647.79, being \$668,837.45 greater than for the year 1911. The larger portion of this increase was due to importations of rice. Import duties collected amounted to \$7,502,960.95, an increase of \$625,676.94. Export duties collected were \$1,058,902.19, a decrease of \$10,787.85. The decrease in export duties was a result of opposing factors. Exports of hemp were less in quantity in 1912 than in 1911, but shipments of this product to the United States were greater than in the preceding year, so that the net quantity subject to export duty was considerably reduced. On the other hand, copra, which contributed most to the high export value for the year, and of which dutiable shipments far exceeded those of 1911, is subject to a very much lower rate of duty, and the increased collections from this source were not sufficient to make up for the loss on hemp. The general increase in export trade is reflected, however, in the amount of wharfage collected. Receipts in connection with the licensing of vessels also showed a gain over 1911, but reductions appear in collections on account of storage, and immigration dues, and from other miscellaneous sources.

The above figures represent all the receipts of the bureau, including the amount accruing to the government of the Moro Province, the amount accruing to the credit of the appropriation of the bureau, salaries of bonded warehouse keepers, collections on account of extra services of employees, and collections subject to refund. It does not include refundable export duties reverted to the insular government in the absence of claims within two years, amounting to \$14,299.78, and the duties collected on Philippine products in the United States and credited to the insular treasury, amounting to \$1,348.71.

Of the above gross collections, \$230,723.39 were collected at the ports of Zamboanga and Jolo and accrued to the government of the Moro Province, an increase of \$13,903.16 over the figures for 1911, gains appearing in the receipts at these two ports from all sources with the exception of immigration dues. The largest increase was in the amount of import duties, which were \$9,566.99 in excess of those for 1911.

The net amount accruing to the insular government from customs collections for the year 1912 available for appropriation was \$8,908,123.64, as compared with \$8,272,397.78 for 1911, representing an increase of \$635,725.86. The amount credited to the appropriation of the bureau was \$90,721.83, as compared with \$114,947.18 in 1911. The total cost of the operations of the bureau for the year was \$451,156.15, being \$513.48 less than for 1911. Of the above amount \$430,526.74 was the total expense to the insular government and \$20,629.41 to the Moro Province, as compared with \$435,947.25 and \$15,222.38, respectively, in 1911.

FOREIGN CARRYING TRADE.

The number of vessels that entered the Philippine Islands from foreign ports during the past year was 949, with a total registered tonnage of 1,965,693; and clearances to foreign ports numbered 903, with tonnage of 1,939,079. In 1911 similar entrances totaled 948, with tonnage of 1,865,196, and clearances 884, representing a total tonnage of 1,808,308. There is, therefore, an apparent increase of 20 in the number of entrances and clearances and of 231,268 in the total tonnage. Many of the vessels included in the above figures call at two or more ports during their visits in these waters for the purpose of discharging import or loading export cargo; and when this fact is taken into consideration the entrances from foreign ports and from other entry ports in the islands reach the total of 1,292, or a tonnage of 2,527,949, and clearances 1,283, with a total tonnage of 2,531,368. In 1911 similar entrances numbered 1,243 and clearances 1,232, with tonnages of 2,347,479 and 2,352,311, respectively. These figures indicate increases of 100 in entrances and clearances and 359,527 in total tonnage.

Based on the latter set of figures, it appears that 52 per cent of the tonnage in the foreign trade of the islands is under the British flag, while American vessels represent little more than 5 per cent of the total tonnage, and domestic vessels approximately 8 per cent.

In the value of imported and exported merchandise carried, the British flag also predominates, although the ratio of this value to the total value of foreign commerce is less than in the fiscal year 1911. The value carried in Spanish vessels has been considerably reduced, while that carried by German and American vessels has increased, giving both of them a more important place than the Spanish, which in 1911 were second to British vessels. The foreign trade carried in American vessels was 6.6 per cent of the total, a little less than the percentage for the preceding year, when it reached 7 per cent.

COASTWISE TRADE.

Increased activity is noted in the coastwise traffic of the islands during the past year. No figures are available to indicate the comparative quantities of cargo and number of passengers carried, but it is significant that on at least two of the principal interisland routes there are now two regular lines of steamships operating where up to the past year there had been but one.

The number of vessels in commission in the islands at the close of the fiscal year was 55 per cent greater than on June 30, 1911. The larger proportion of these were vessels licensed for lighterage and harbor service, but those engaged in the coastwise trade numbered 764, as compared with 577 at the end of 1911.

The official shipping agent has rendered valuable assistance to coastwise shipping in registering seamen. Through his agency 4,660 seamen were given employment, 3,432 discharged, and 3,442 newly registered during the past year.

IMMIGRATION AND EMIGRATION.

During the fiscal year 1912 persons to the number of 15,198 came to the Philippine Islands, of whom 2,536 were immigrants; and 19,606 departed, of whom 729 were emigrants, showing a net gain to the

islands of 1,807 residents. Filipinos to the number of 5,313 departed from the islands, 3,889 going to the Hawaiian Islands, being 647 more than went to those islands during the preceding year, while 1,194 Filipinos returned from abroad. American citizens to the number of 4,402 left the islands, 4,311 entered during the 12 months. There was a slight decrease in the number of Chinese, Japanese, and Spanish and a 70 per cent increase in the number of East Indian immigrants during the year.

It is estimated that there are approximately 65,000 Chinese domiciled in the islands, about 50 per cent of whom reside in the city of Manila.

The work performed by boards of special inquiry at the port of Manila in the enforcement of the immigration law (act of Congress of Feb. 20, 1907), and the various acts of Congress known collectively as the Chinese exclusion laws, the number of aliens landed by the insular collector of customs on appeal from the decisions of such boards, those landed under bond not to become public charges, and those deported during the fiscal year 1912, are shown in the following statement:

Races or peoples.	Cases pending from 1911.	New applications.	Total applications.	Aliens landed.	Aliens re-jected.	Aliens landed on appeal.	Aliens landed under bond.	Aliens de-ported.	Cases pending.
Afghans.....		1	1		1			1	
British.....		4	4		4	1		3	
Chinese.....	121	938	1,059	860	100	24		38	137
East Indian.....		32	32	2	30		7	23	
Japanese.....	2	81	83	17	64	3	8	48	7
Malay.....		1	1		1			1	
Mexican.....		1	1		1			1	
Russian.....		1	1		1			1	
Syrian.....		1	1		1				1
Turkish.....		2	2		2				2
Total.....	123	1,062	1,185	879	205	28	15	116	147

My previous recommendation that suitable buildings for the immigration and detention station at Manila be constructed is renewed.

REVENUE-CUTTER SERVICE.

The two cutters, the *Sora* and the *Skua*, still constitute the only equipment owned by the bureau for this service and they are entirely inadequate for the work. Funds have, however, been provided for the purchase of a new revenue cutter to have a speed of 16 knots and to be equipped with two high-speed launches for close-shore patrol, for use in the southern waters of the Archipelago.

PORT OF MANILA.

The volume of commerce, both foreign and coastwise, at the port of Manila continues to increase. The number of foreign vessels entering the harbor during the year 1912 was 7 per cent more than for the preceding year. This steady growth in the volume of shipping emphasizes the need of still better facilities for handling the constantly increasing commerce of this port.

The collector of customs renews his recommendation for the improvement of Manila Harbor, the construction of two new piers, the building of a bulkhead and cargo sheds connecting the present government piers, the improvement of the Pasig River to provide additional berthing space for coastwise vessels, and the early erection of a new customhouse in the port district. All these improvements are very desirable. They would greatly facilitate the handling of cargo and would stimulate both foreign and coastwise trade. They are well worthy of consideration by the Legislature, and I recommend that the money necessary therefor be appropriated as soon as the condition of the treasury permits.

OTHER PORTS.

Business at the port of Iloilo, both imports and exports, shows an encouraging growth. Conditions at this port were much improved by the completion of a portion of the river wall but there is still much to be done, and the proper accommodation of shipping demands the extension of the wall both up and down the river. The recommendation is repeated that a suitable customs building be erected at this port, the present structure being entirely inadequate and unfit.

At Cebu the total foreign commerce was greater in value in 1912 than in 1911, although imports show a slight decrease. The facilities at this port for the accommodation of shipping, both foreign and coastwise, are better than at any other subport of entry, but the discrimination against this port in the matter of freight rates on through shipments to New York still continues. The new customhouse was formally opened on July 4, 1911. The new wharves give excellent service, but provision should be made for the erection of sheds for the protection of cargo, and it is recommended that funds be made available at an early date for this purpose.

Imports at Zamboanga show an increase in 1912 over the preceding year, but exports fell off considerably. The wharf at that place has been repaired, and extended so that now all vessels calling at that port are enabled to lie alongside, and the province has under consideration extensive port improvements for the future.

Trade at Jolo has increased 27 per cent, and at Balabac shows a slight increase.

BUREAU OF INTERNAL REVENUE.

PERSONNEL.

On February 11, 1912, Mr. Ellis Cromwell, collector of internal revenue, died, stricken suddenly with heart disease. The government lost by his death an intelligent, zealous, and efficient officer.

Mr. William T. Nolting was appointed collector of internal revenue on February 26, 1912.

COLLECTIONS.

The following is a summary of the collections made by the bureau of internal revenue during the fiscal years 1911 and 1912:

Items.	1911	1912
Internal-revenue taxes.....	P 15,655,791.18	P 16,331,125.23
United States internal-revenue taxes.....	189,783.91	448,732.65
Opium taxes and fines.....	119,268.11	116,729.71
Weights and measures taxes.....	75,157.27	85,595.00
Justice of the peace fines and fees.....		262,213.15
Sisiman matadero.....		28,535.81
San Lazaro estate:		
Rentals.....	51,468.82	65,182.22
Miscellaneous.....	65.00	
Sales of public mineral lands.....	4,115.34	441.42
Subscriptions to publicity fund.....		11,460.32
Franchise taxes.....	19,694.29	187,680.21
Total.....	16,115,343.92	17,537,695.72
City of Manila taxes and other revenues.....	¹ 3,090,787.28	3,646,472.58
Grand total.....	19,206,131.20	21,184,168.30

¹ In a few instances the figures were revised after the 1911 report was printed; hence the apparent discrepancy.

This table shows an increase in collections over the fiscal year 1911 of P1,978,037.10, or a little over 10 per cent. Of this sum, P921,703 was due to receipts from new sources, while the sum of P1,056,334 was due to increase in the output from manufactories of taxable articles and to a general improvement in business conditions.

By Act No. 2041, effective July 1, 1911, the fees and fines collected by justices of the peace ceased to be municipal revenue and are now insular revenue credited to the appropriation for the judiciary.

The following table shows the collections of internal-revenue taxes made during the fiscal years 1911 and 1912 and the increase or decrease for the different items during the last fiscal year:

Items.	1911	1912	Increase.	Decrease.
Distilled spirits:				
Domestic.....	P2,551,501.04	P2,713,061.06	P161,560.02	
Imported.....	285,126.19	336,623.34	51,497.15	
Wines and imitation wines:				
Domestic.....	47,873.21	60,083.89	12,210.68	
Imported.....	127,011.15	113,307.39		P13,703.76
Fermented liquors:				
Domestic.....	155,500.00	178,650.00	23,150.00	
Imported.....	29,358.46	23,528.34		5,830.12
Smoking and chewing tobacco:				
Domestic.....	168,138.51	205,451.66	37,313.15	
Imported.....	64,747.27	77,573.79	12,826.52	
Cigars:				
Domestic.....	226,630.44	255,687.58	29,057.14	
Imported.....	21.20	13.31		7.89
Cigarettes:				
Domestic.....	4,067,920.46	4,376,711.95	308,791.49	
Imported.....	1,657.54	1,968.51	310.97	
Matches:				
Domestic.....	254,000.00	246,860.00		7,140.00
Imported.....	87,262.87	123,796.45	36,533.58	
Dealers in alcohol and tobacco products....	516,918.70	566,128.09	49,209.39	
Merchants, manufacturers, and common carriers.....	1,793,288.14	1,934,586.74	141,298.60	
Occupations, trades, and professions.....	563,102.94	569,095.20	5,992.26	
Cedulas personales.....	3,883,415.00	3,643,117.80		240,297.20
Documentary stamp taxes.....	242,410.62	272,935.35	30,524.73	
Banks and bankers.....	223,588.13	245,086.31	21,498.18	
Insurance companies.....	31,521.91	32,133.80	611.89	
Forest products.....	334,763.27	354,685.37	19,922.10	
Miscellaneous.....	34.13	39.30	5.17	
Total.....	15,655,791.18	16,331,125.23	942,313.02	266,978.97

From the foregoing table it will be seen that there has been an increase of internal revenue during the fiscal year of ₱675,334.05, or about 4.3 per cent. Exclusive of cedula taxes, the internal-revenue collections show an increase of 7.8 per cent. This increase of revenue indicates improved business conditions in the islands. There is noted a falling off in importations of wine and beer, while there has been a slight increase in imported smoking and chewing tobacco, and a considerable increase in imported matches.

Of the total amount of internal-revenue collections during the year, there accrued to the insular treasury ₱9,010,688.68; to provincial treasuries ₱4,293,099.13; and to municipal treasuries ₱3,027,337.42, as compared with ₱8,162,847.76, ₱4,452,256.80, and ₱3,040,686.62, respectively, for the fiscal year 1911.

The following table shows the city of Manila taxes and other revenues collected during the fiscal years 1911 and 1912:

Item.	1911	1912
Real estate tax.....	₱1,286,062.07	₱1,299,436.79
Matadero receipts.....	199,738.38	113,204.01
Market receipts.....	295,331.25	319,666.05
Municipal licenses.....	220,100.40	217,432.72
Rentals of city property.....	29,055.97	26,484.55
Municipal court receipts.....	107,134.32	115,243.59
Pail system.....	69,384.85	63,863.99
Odorless-excavator service.....	25,487.00	20,160.00
Building permits.....	22,006.57	27,086.78
Water rents.....	295,561.38	312,923.43
Board of health fees.....	4,348.70	4,715.30
Justice of peace and sheriff's fees.....	16,556.53	18,841.34
Cementerio del Norte.....	24,772.44	27,583.27
Franchise taxes.....	55,456.90	60,876.64
Rice sales.....		225,058.66
Construction of streets.....		71,201.79
Construction of sidewalks.....		12,699.44
Transportation, Insular Government.....		105,435.96
Other minor receipts, miscellaneous, and internal-revenue dividend.....	439,770.52	604,558.27
Total.....	3,090,787.28	3,646,472.58

¹ Revised figures.

COST OF COLLECTION.

The cost to the government of making the above collections, including the enforcement of certain laws, ordinances, and regulations which are not revenue measures, was ₱644,109.24, equal to 3.06 centavos for each peso collected. This cost of collection has been undergoing a gradual reduction since the year 1907, when the cost of collecting each peso was 5 centavos. The above sum includes ₱544,109.24 received by appropriation and ₱100,000 received from the city of Manila for the assessment and collection of city taxes and charges, but does not include the expense of collection incurred by provincial governments.

The cost of assessing and collecting the taxes of the city of Manila during the year amounted to 2.74 centavos for each peso collected. This cost was 3.23 centavos for the year 1911, and 3.45 centavos for 1910.

In addition to the amounts shown above, the sum of ₱29,038.68 was expended from the special opium fund in the enforcement of the law prohibiting the importation, sale, and use of opium except for medicinal purposes, as compared with ₱23,554.55 during the fiscal year 1911.

DISTILLED SPIRITS, WINES, AND LIQUORS.

Distilled spirits.—The foregoing table of internal-revenue tax collections shows an increase during the year of taxes collected on both domestic and imported distilled liquors of 8.4 per cent.

The total output from registered distilleries during the year was 11,426,728 proof liters, being over 9 per cent more than during the preceding fiscal year. The quantity of denatured alcohol used for industrial purposes, principally for lighting, was almost double the quantity used during the fiscal year 1911, and almost four times as much as was used during the fiscal year 1910.

Wines.—A slight falling off is shown in taxes collected on imported wines and imitations.

The following table shows the quantity in gauge liters of domestic and imported wines and imitation wines on which taxes were collected during the fiscal years 1911 and 1912:

	Containing not more than 14 per cent alcohol.		Containing more than 14 per cent alcohol.		Sparkling wines.	
	1911	1912	1911	1912	1911	1912
Domestic.....	456,303	603,313	78,480	76,057	.....	.....
Imported.....	1,139,160	977,351	95,744	113,505	22,419	16,412

Fermented liquors.—Taxes were collected during the year on 5,054,458 gauge liters of beer, of which 4,466,250 were of domestic manufacture and 588,208 were imported, as compared with a total of 4,621,460 for the year 1911, of which 3,887,500 were of domestic manufacture and 733,960 were imported.

There were exported during the year 6,703 liters of domestic beer, as compared with 3,900 during the fiscal year 1911. The total output of domestic beer exceeded that of the year 1911 by 578,750 liters.

TOBACCO PRODUCTS AND MATCHES.

Leaf tobacco.—The following comparative statement shows the quantity of unstemmed leaf tobacco produced, the quantity used in the manufacture of cigars, cigarettes, smoking and chewing tobacco, and the quantity exported, during the calendar years 1910 and 1911:

	Calendar year.	
	1910	1911
Leaf tobacco on hand by dealers and manufacturers at beginning of calendar year.....	<i>Kilos.</i> 17,324,680	<i>Kilos.</i> 18,072,981
Production.....	25,017,129	28,388,519
Total.....	42,341,809	46,461,500
Quantity used in the manufacture of—		
Cigars.....	2,943,950	2,523,959
Cigarettes.....	6,244,637	7,368,671
Smoking tobacco.....	162,565	227,335
Chewing tobacco.....	196,579	190,021
Total.....	9,547,731	10,309,986

¹ Including balances not previously reported.

	Calendar year.	
	1910	1911
Exported in the leaf ¹ —	<i>Kilos.</i>	<i>Kilos.</i>
To the United States.....	5,477	2,208
To other countries.....	11,816,875	12,658,320
Total.....	11,822,352	12,660,528
Disposed of through retailers to consumers (no tax is imposed on cigars and cigarettes made by hand by the actual consumers thereof), and shrinkage..	² 2,898,745	2,553,331
Total.....	24,268,828	35,523,845
Balance on hand by dealers and manufacturers at end of calendar year.....	³ 18,072,981	20,937,655

¹ There were also exported 390,413 kilos of cuttings, clippings, and waste during 1911.

² Includes waste tobacco used for industrial purposes.

³ Including balances not previously reported.

Smoking and chewing tobacco.—The following statement shows the quantities, expressed in kilograms, of domestic and imported smoking and chewing tobacco on which taxes were collected during the fiscal years 1911 and 1912:

Kind.	Domestic.		Imported.	
	1911	1912	1911	1912
Smoking.....	152,816	229,404	82,201	94,056
Chewing.....	191,141	193,961	52,328	71,672
Total.....	343,957	423,365	134,529	165,728

In addition to the smoking and chewing tobacco consumed in these islands, the exports of smoking and chewing tobacco during the past year were 29,666 kilograms, as compared with 39,734 kilograms in the fiscal year 1911.

Cigars.—The production of cigars in the islands during the past year was 284,918,845, a gain of 56,667,554 over the previous year. The domestic consumption amounted to 109,924,014, as compared with 96,115,525 the preceding year. The cigars exported to foreign countries and to the United States amounted to 104,476,781 and 70,518,050, respectively, as compared with 104,604,170 and 27,531,596, respectively, for the fiscal year 1911.

The demand for Philippine cigars in the United States fell off in April, 1910, about six months after the first large shipment of duty-free cigars reached that market, and for several months thereafter very few cigars were shipped to the United States.

With the cooperation of the Manila Tobacco Association, rules and regulations have been adopted governing the shipment of cigars to the United States. These rules provide, among other things, that the cigars shall be divided into three groups—first, second, and third. Not less than 25 per cent of the first group nor more than 25 per cent of the third group shall be exported and entitled to the government inspection stamp. The increased demand for the Philippine cigars in the United States is the best evidence that these regulations are assisting the tobacco industry in these islands. It is not believed,

however, that the cigar manufacturers are receiving a fair price, considering the quality of their goods. We have now passed the experimental stage and it is believed that the Philippine cigars will soon have a firm hold in the United States.

Cigarettes.—The total production during the year was 4,404,929,808 cigarettes, as compared with 4,094,028,988 during the preceding year. Of these, 4,369,153,048 were consumed in the islands and 35,776,760 were exported to foreign countries, as compared with 4,058,603,123 and 35,425,865, respectively, for the fiscal year 1911. Over three-fourths of the cigarettes exported went to China. The Philippine cigarette does not seem to meet with much favor in the United States, the number exported tax free to that country for the years 1910, 1911, and 1912 being, respectively, 10,213,200, 8,387,900, and 3,061,900.

Matches.—The output during the fiscal year 1912 of the one match factory in the islands decreased 2.8 per cent as compared with the fiscal year 1911, and the imported matches show an increase of nearly 42 per cent over the fiscal year 1911.

LICENSE TAXES.

Dealers in alcohol and tobacco products.—There was collected from this source during the past year the sum of ₱566,128.09, as compared with ₱516,918.70 during the previous year, an increase of nearly 10 per cent.

Merchants, manufacturers, and common carriers.—A steady increase in the amount of percentage taxes paid, which has been noted for several years last past, has continued during the fiscal year 1912, and is a fair indication of the improved business conditions in the islands. Under this head ₱1,934,586.74 were collected in the past year, as against ₱1,793,288.14 during the fiscal year 1911. Of this amount 92.5 per cent was paid by merchants, 5.9 per cent by manufacturers, and 1.6 per cent by common carriers. While the increase in the percentage taxes collected from merchants and manufacturers, ₱131,940.50, is not as large as the increase shown the previous year, it nevertheless indicates an increase of nearly ₱40,000,000 in the gross value of goods, wares, etc., exclusive of liquors and tobacco products and all exports, sold by merchants and manufacturers throughout the Islands.

Occupations, trades, and professions.—There were collected as specific occupation taxes during the year ₱569,095.20, as against ₱563,102.94 during the fiscal year 1911. Of this amount 74.5 per cent was paid by the owners of cockpits, 9.7 per cent by lawyers, doctors, civil engineers and surveyors, and 15.8 per cent by all other occupation-license taxpayers. In 540 municipalities additional taxes on cockpits were imposed by municipal ordinances. In 31 municipalities no cockpit licenses were issued during the year.

BANKS AND BANKERS AND INSURANCE COMPANIES.

As shown by the amount of taxes assessed thereon, the average monthly deposits with banks has increased from ₱13,250,000 in the calendar year 1905 to ₱27,333,000 in 1911, not including deposits in postal savings banks.

According to the taxes collected, the average capital of the banks increased from ₱11,918,765 in the calendar year 1910 to ₱14,397,041 in 1911, and the average deposits from ₱24,661,585 to ₱27,341,834.

An increase is noted in the business of the insurance companies. Based on taxes paid, the total amount of insurance during the calendar years 1910 and 1911 was as follows:

	1910	1911
Life.....	₱16,813,630.42	₱24,537,604.50
Fire.....	122,287,938.51	132,299,960.13
Marine.....	104,533,359.79	110,911,246.28
Accident.....	595,000.00	615,000.00
Typhoon and earthquake.....		1,710,500.00

CEDULAS PERSONALES.

A decrease of ₱240,297 is shown in collections from the sale of cédulas personales or certificates of registration during the past year. Over half of this decrease was due to the increased number of regular cédulas issued before the delinquency period arrived in 1911 as compared with 1910, resulting in a decrease in the sale of delinquent cédulas in the first half of the fiscal year 1912. Over ₱18,000 of the decrease was due to the exemptions from the cédula taxes in the Provinces of Batanes, Mindoro, and Palawan, provided by Act No. 2055. The long drought experienced during the year delayed considerably the collection of the cédula tax, but it is expected that before the close of the present calendar year the collections under this head will be brought up to normal.

The double cédula tax was in force in 33 provinces, the same in which it was in force in the two preceding fiscal years, and in which reside 95.68 per cent of the cédula-paying population. Over 90.7 per cent of the cédulas sold during the year were without delinquency charges added.

SAN LAZARO ESTATE RENTALS.

The following is a summary of the work accomplished during the year in the collection of rentals from tenants on the San Lazaro estate:

Sites rented July 1, 1911.....	2,256
Sites rented June 30, 1912.....	2,278
Tenants June 30, 1912.....	1,418
Amount collected.....	₱65,182.22
Amount delinquent June 30, 1912.....	₱4,747.00

WEIGHTS AND MEASURES.

An increase of nearly 14 per cent is noted in the collections of fees for the testing, sealing, etc., of weights and measures.

OPIUM.

The receipts from the enforcement of the opium law have been almost exclusively composed of fines imposed for violations of its provisions. There were collected as taxes and fines during the fiscal year ₱116,729.71, as against ₱119,268.11 during the previous fiscal

year. This decrease is in part due to the larger number of jail sentences imposed by the courts and partly to a decrease in the illegal use of opium.

During the year 1,370 persons were apprehended for violations of the opium law, as compared with 1,248 during the previous year. There were 797 convictions, 204 cases were compromised, 42 defendants were deported, and 141 cases were pending at the close of the fiscal year 1912.

PUBLICITY FUND.

During the year 125 subscribers voluntarily contributed ₱11,460.32 to a general publicity fund to be raised by private subscriptions and by an equal amount, not exceeding ₱50,000, appropriated by the Legislature for expenditure under the direction of the Governor General by a committee consisting of representatives of the commercial interests and of the government for the purpose of advertising Philippine products and interests. These contributions were collected by the bureau of internal revenue and deposited in the insular treasury.

Full details of the operation of the bureau of the treasury, the bureau of customs, and the bureau of internal revenue will be found in the reports of the respective directors of those bureaus. The report of the attorney general gives a detailed statement of the work of the bureau of justice and of the judiciary.

Respectfully submitted.

GREGORIO ARANETA,

Secretary of Finance and Justice

To the PHILIPPINE COMMISSION,
Manila, P. I.

REPORT OF THE SECRETARY OF
PUBLIC INSTRUCTION.

REPORT OF THE SECRETARY OF PUBLIC INSTRUCTION.

DEPARTMENT OF PUBLIC INSTRUCTION,
Manila, October 11, 1912.

GENTLEMEN: I have the honor to present herewith the eleventh annual report of the secretary of public instruction. Unless otherwise stated, the report covers the period between July 1, 1911, and June 30, 1912.

During the months of July, August, and the greater part of September of last year, I was absent from the islands on leave and the work of the department was carried on by Hon. W. Cameron Forbes, Governor General, as acting secretary of public instruction.

BUREAU OF EDUCATION.

ENROLLMENT.

At the close of schools in the month of March there were in operation 3,364 primary, 283 intermediate, and 38 secondary public schools, employing 664 American and 7,696 Filipino teachers. During the year 529,655 pupils were enrolled, with an average daily attendance of 329,073.

For the school year 1910-11 the enrollment was 610,493 and the average daily attendance 355,722; that is, the total enrollment was about 81,000 less and the average daily attendance was nearly 27,000 less than last year. In other words, there was a loss in enrollment, but a gain in the percentage of pupils in actual attendance in the schools. In this connection the following table will be of interest:

	Average daily attendance.		
	1909-10	1910-11	1911-12
Primary:			
Grade I.....	191,498	209,119	171,168
Grade II.....	60,930	74,232	69,909
Grade III.....	31,461	33,125	39,290
Grade IV.....	14,062	17,386	22,479
Intermediate:			
Grade V.....	7,600	9,466	10,950
Grade VI.....	4,234	6,042	7,190
Grade VII.....	2,480	3,402	4,608
Secondary:			
First grade.....	1,127	1,603	1,971
Second grade.....	490	624	796
Third grade.....	286	282	452
Fourth grade.....	166	241	260
Total.....	314,334	355,522	329,073

It will be seen from this table that the decrease is in the lowest grades, there having been a considerable increase in all except the first and second years of the primary course.

This decrease in enrollment during the past year was not unexpected. In many towns the balances in the municipal treasury have been expended in constructing permanent school buildings, and the expenditure of current funds for permanent improvements of course necessitates corresponding retrenchments in salaries and like current charges. The cost of intermediate is considerably more than that of primary instruction. More emphasis than ever has been placed upon industrial training, which is more expensive than simple academic instruction, so that the same expenditure would provide for a smaller number of pupils.

Another cause operating to decrease enrollment was the increase in the salaries of the Filipino teachers. During the year the average salary paid insular Filipino teachers has been increased from ₱45.15 to ₱49.88. This increase carries with it an additional expenditure of nearly ₱35,000 from insular appropriations. The average salary of municipal teachers has in the same period been raised from ₱18.55 to ₱19.93. Had the number of these teachers been as large during the past year as it was during 1910-11 this raise would have resulted in an increased expenditure of approximately ₱135,000, and since there has been no appreciable increase in municipal revenues, the salaries of the teachers could be made larger only by decreasing the total number employed. The following table shows the total number of salaried insular and municipal teachers with the average salaries for the years 1908 to 1912:

	Insular.		Municipal.		Total.	
	Number.	Average salary.	Number.	Average salary.	Number.	Average salary.
1908-9.....	816	₱43.97	6,882	₱17.83	7,698	₱20.60
1909-10.....	1,010	44.66	7,120	18.29	8,130	21.56
1910-11.....	1,237	45.15	8,387	18.55	9,624	21.97
1911-12.....	1,064	49.88	6,487	19.93	7,551	24.16

This decrease should not be discouraging. There has been no real loss. The most efficient teachers have been retained and only unsatisfactory schools closed. It has been and will continue to be the purpose of the department to increase the efficiency of our present public school system rather than to expand beyond the point where satisfactory teachers can be obtained and the necessary equipment provided to do reasonably good work with our present available funds. In short, there can be no further expansion until we have more money to spend for public schools.

COURSE OF STUDY.

No noteworthy changes have been made in the course of study during the past year. The course requires 11 years for completion—4 in the primary, 3 in the intermediate, and 4 in the secondary grades.

In the intermediate grade six courses are given: The general course, the course for teaching, the course in farming, the trade course, the course in housekeeping and household arts, and the course in business. On reaching this grade the pupil, with perhaps some advice from the teacher, elects the course he wishes to take. All intermediate schools

are not equipped to teach all the courses—some give only one, some two or three, some few all six—but usually a pupil can find a school reasonably near his home in which he can obtain some elementary training in the subject he wishes to study.

The high school course has been revised. It is now as follows:

First year.—Algebra, English, composition, general history.

Second year.—Plane geometry, English, physical geography, government, general history, United States history.

Third year.—Review arithmetic, English, biology (double period), colonial history, commercial geography.

Fourth year.—Advanced algebra (optional), solid geometry (optional), Latin (optional), literature, composition and rhetoric, business English, physics (double period), economic conditions of the Philippines.

The present particular purpose of the high schools is to prepare students for collegiate work, and the course has been shaped to this end. The number of students graduated is not yet large, and, after finishing the high school, three-fourths of the graduates continue their studies elsewhere. Should the time come when a considerable percentage go directly from the schools to the active occupations of life, perhaps some readjustment should be made, both in the studies and in the length of the course, in order that these young men and women should have some more practical equipment for a career of usefulness than the present course gives them. The aim of education in the Philippine Islands must, for many years, be in large part utilitarian; the boys and girls must be taught that manual labor is honorable and equipped for some occupation, trade, or profession upon which they can enter at the conclusion of their studies.

INDUSTRIAL INSTRUCTION.

Some industrial instruction is now given in practically all schools. On entering, a pupil must take up, as a part of each day's work, certain manual exercises, beginning as play but leading to the regular courses provided in the advanced primary and the intermediate grades. In February, 1912, an average month, 216,290 boys and 125,203 girls, representing 91 per cent of the monthly enrollment, were engaged in industrial work, such as regular manual training and trade work, school gardening and farming, housekeeping, lace making and embroidery, the making of hats and mats, and the study of basketry.

A close touch is kept on the work of the schools by means of provincial industrial supervisors, who constantly visit the schools in their territory; of inspectors and instructors attached to the general office, who travel throughout the islands in general; of publications, bulletins, and correspondence; through industrial exhibits, and through the appointment of *pensionados* to receive special industrial training in the Philippine Normal School and the Philippine School of Arts and Trades.

The finished product which is turned out by the children of the public schools is remarkable both for its quality and for its diversity. The exhibit held by the bureau of education in connection with the carnival last February was a source of constant surprise and pleasure to the thousands of persons who visited it. The dainty laces and embroideries, the really beautiful baskets, the hats, the pottery, the furniture, and scores of kindred products were eagerly sought for

and many times their number could have been sold. While the sale of the product is incidental to the work of the schools, the display brought in nearly ₱30,000, which in part went to the children, but in a great measure reimbursed the schools for the outlay to which they had been put for raw materials. The eagerness with which the articles were bought shows, however, that the time has come when household industries may be made a source of large revenue to the people of the islands, and to further their development the Legislature in its last session created the School of Household Industries.

School of Household Industries.—This school was created by Act No. 2110 of the Philippine Legislature, which provided ₱100,000 for its establishment and support. Briefly stated, the purpose of the school is to teach adult women lace making and embroidery, and the instruction is definite and practical. Some 150 women, living in widely separated parts of the islands, have been brought to Manila and enrolled in the school. After a six months' course they will be returned to their homes, where it is expected they will gather about them and instruct other women, and thus increasing numbers of persons will busy themselves with household industries. As soon as one class has become proficient and gone from the school another will be brought in to take its place. Of course, it is possible to train the women and create a demand for their work only because lace making and embroidery has been so thoroughly taught in the schools that knowledge of and enthusiasm for the subject are widespread in the Archipelago. Housekeeping among the poorer classes is simple and takes only a small part of the woman's day, so that she has much unoccupied time which can be given to useful employment, increasing the family income and replacing habits of idleness with those of thrift and industry.

It is evident that the practical benefit to be derived from this school depends almost entirely on the touch which is kept on the women after they have been trained. They must be encouraged to continue the work by having material and patterns available and a ready market for their finished product. Already the trade of the islands in these lines is considerable, but it is not so firmly established that it will grow and develop without careful supervision and encouragement. The bureau of education can do a great deal in the way of keeping in touch with the women and showing them how to establish local centers, but it is not, of course, a commercial institution and can not go to the lengths which will, for the present, be necessary.

The chief responsibility for the introduction of this work rests with the sales agency, an organization created by the government primarily to market the wares of the non-Christian tribes, but whose functions have been extended to a general supervision over household industries.

PERSONNEL.

There has been no change in the directorate of the bureau, but during the year four division superintendents have resigned, and Mr. J. J. Coleman, who has been in the bureau for some 11 years, was recently compelled by sudden ill health to return to the United States. It is earnestly hoped that Mr. Coleman may recover his health and return to duty in the islands, where he has served long and faithfully.

In order to keep the heads of the bureau in more intimate touch with the work in the field, there has been added to its force an inspecting superintendent and several traveling supervisors, who are continually visiting the schools of the islands, coordinating, developing, and strengthening the work in them.

American teachers.—As has been stated elsewhere, there are something over 650 positions for American teachers in the bureau of education, of which about 15 per cent usually become vacant each year through the elimination of teachers whose services have not been satisfactory and the normal resignations of those who, after a period of service in the Tropics, desire to return home. For these places new appointees must be found in the United States. As was stated last year, it was thought that better results would be obtained if some person thoroughly familiar with the needs of the insular service and of conditions attaching to the work here were sent to the United States and charged directly with the selection of new teachers. This plan has proved a distinct success. During the months of April, May, and June 118 new teachers arrived in the islands, each of whom had been interviewed by this official and had his qualifications thoroughly gone into. Upon their arrival a few of these new appointees were sent to Baguio, where, in the vacation assembly then in session, they might receive some special instruction as to the duties of public-school teachers in the islands, and by rubbing elbows with others who have long been in the service learn how best to adjust themselves to unfamiliar conditions. The result of this venture was quite satisfactory, and it is hoped that in another year larger numbers can be sent. Those who did not go to Baguio were given a course of special lectures in Manila. Except in the larger cities, living conditions are rarely suitable for single women, and in consequence few have been appointed.

There was a time when some stigma attached to the American teacher in the Philippines because, by their crudities of manner and niggardly mode of living, a few ill-chosen employees had reflected discredit upon the entire service. This time has happily long passed, and it would be difficult to find, not only in the islands but in the United States, a more steadfast, capable, and efficient body of men and women than our American teachers.

Filipino teachers.—At the close of the year 7,696 Filipino teachers were on duty. Of this number 1,064 were paid from insular funds, 6,487 from municipal funds, and 145 were apprentices who received no salary. The original task of providing suitable Filipino teachers for the public schools was one of great difficulty; there was no large supply to draw from and it was necessary not only to instruct young men and women in the science of teaching but to furnish them a new language as well. This task has now been pretty well accomplished. The Filipino teachers have, as a rule, a satisfactory knowledge of English and have learned how to impart their knowledge. Almost all primary instruction is now given by them and, to a considerable extent, the intermediate instruction has been turned over to them also. Each year the number engaged in secondary instruction increases, and 161 have been assigned to positions as supervising or assistant supervising teachers. I have already said that the salaries of the teachers have been increased; and although they are not yet commensurate with the salaries usually received by

their fellows in other walks of life, further large increases can not be made until there is some considerable augmentation of our revenues. There is, however, one advantage attaching to their service which in a large measure compensates for these smaller salaries—the exceptionally large number of better-paid positions with which satisfactory teachers can be rewarded after having become qualified to fill them.

Pensionados in insular schools.—In order to provide an adequate supply of competent Filipino teachers, the government has created a large number of scholarships to which both teachers and students are appointed. The *pensionados*, as those holding scholarships are called, are assigned to the Philippine Normal School, the Philippine School of Arts and Trades, and a few to the College of Agriculture at Los Baños. A teacher *pensionado* is ordinarily given one year of higher instruction, a student two or three. During the year there were some 231 *pensionados*, the great majority of whom were doing thoroughly satisfactory work. These scholarships have done more than any other one thing to improve the teaching force, and it will be a long time before the number can be diminished to any considerable extent.

Pensionados in the United States.—With a view to providing the government with young Filipino men and women suitable for appointment to positions requiring collegiate training, the Commission, shortly after its creation, established scholarships in the United States. So far 211 appointments have been made thereunder; and some of the brightest and most capable young men in the government service received their training in some college or university in America. During the year only two appointments were made, and with the establishment of the university, in which instruction is given in almost every profession needed in the islands, it is believed unnecessary to continue to send young men and women to the United States for undergraduate work. At its last session the Legislature provided 15 fellowships for advanced work, and these should take care of all the students whom, in ordinary circumstances, the government should find it necessary to maintain elsewhere than in the islands.

Vacation assemblies.—The fifth teachers' vacation assembly was held at the teachers' camp in Baguio from April 15 to May 17. The purpose of the assembly is to provide a place where, for a moderate outlay, teachers can spend their holidays amid agreeable surroundings and be given an opportunity for study and intellectual stimulation as well as to foster and develop an *esprit de corps* and a spirit of loyalty and enthusiasm among the teachers. During the assembly frequent professional conferences were held, by which men actually engaged in the work of teaching were given an opportunity of embodying the results of their experience and observation in a series of reports, which are of great value in shaping and developing the work of the bureau. Courses of lectures were given by professors who had been brought from the United States for that purpose, and a comprehensive athletic program was carried out. During the season nearly 400 persons were registered at the camp.

The vacation assembly for Filipino teachers was held at the Philippine Normal School from April 15 to May 24. Fourteen hundred and ninety-two students were enrolled, representing 36 school divisions. At the same time classes were held in the Philippine School of Arts and Trades, with an attendance of 245 students from 35 school divisions. Regular academic classes were held, and special

attention was given to industrial instruction, gardening, and athletics. Lectures were delivered by prominent men and various excursions to places of interest adjacent to Manila were provided. Similar institutes were held in several of the large provincial capitals.

BUILDINGS AND SITES.

The chief step toward supplying the islands with permanent school buildings for the smaller schools was taken when the Philippine Legislature as its first legislation passed Act No. 1801, appropriating ₱1,000,000 for assisting municipalities to provide schoolhouses for their barrios. This sum has already been allotted, and by Act No. 2029 another ₱1,000,000 have been appropriated, which is to be available at the rate of ₱250,000 a year. Of this latter appropriation ₱865,760 remain unallotted.

It was at first difficult to obtain plans for permanent buildings which could be put up for the comparatively small amounts of money available for each separate project—the average amount being about ₱6,000. As a consequence, standard plans were prepared for buildings—simple in design but durable in quality and adequate in size—of reenforced concrete; and now practically all the smaller school buildings are put up from these plans. So far a total of 135 schoolhouses have been completed, 83 of which are built in accordance with the standard plans; and 173 are under construction, 81 of which are so nearly completed that they have already been occupied.

Another matter which is now receiving the somewhat tardy attention of the department is the acquisition of suitable sites for the school buildings. With the spread of athletics and the necessity of teaching the children how to raise vegetables and of developing their aesthetic tastes through flowers and an attractive setting for the schoolhouses, it has been found necessary to have a considerable amount of ground around the buildings. The tendency heretofore has been to locate the school building either on or immediately adjacent to the public plaza, which is the center of the business district and where land is apt to be needed for markets and other commercial purposes. In consequence there has been difficulty in obtaining sufficient unoccupied ground. Hereafter the minimum site which will, in ordinary circumstances, be approved for central schools is 10,000 and for barrio schools 5,000 square meters. After the school building has been occupied the grounds will be improved according to definite plans, a part being given over to gardens and a part to playgrounds. The necessary outbuildings for perfect sanitation will be provided, and scrupulous cleanliness will be exacted both for the buildings and for the grounds. So far the bureau is in possession of 137 school sites of 10,000 square meters or more and 332 school sites of 5,000 square meters or more, almost half of which have been acquired during the past year. It is hoped that next year a substantial increase in the number can be reported.

Even with the very liberal provision which the government has made from its limited revenues for school buildings, it will be many years before all of our public schools will be permanently housed. Some rules and regulations regarding temporary buildings have, therefore, been provided. In general they are that the buildings must be well-lighted and thoroughly sanitary; and plans for a model building can always be obtained from the bureau.

INSULAR SCHOOLS.

Mention has already been made of the School of Household Industries.

Philippine Normal School.—The Philippine Normal School has just been moved into a new building large enough to provide for its present needs and the reasonable growth of the next few years. This will be supplemented by a new girls' dormitory, for the construction of which plans have been prepared and some ₱275,000 made available. The Normal School is now devoted entirely to the training of teachers. Forty students were graduated last March, and of these 28 are already in the employ of the bureau of education. Before entering the school an applicant must sign a statement that one intends to devote oneself to the profession of teaching. Nine hundred and twenty-eight pupils were enrolled last year.

Philippine School of Arts and Trades.—The Philippine School of Arts and Trades is still inadequately provided for in the shops on Calle Arroceros. Two hundred and twenty-five thousand pesos are available for new buildings, and while this sum is not sufficient properly to house the school it will greatly relieve present congestion. The work in the school during the year has been thoroughly satisfactory.

Philippine School of Commerce.—During the year 362 pupils were enrolled in the school of commerce as against 391 for the preceding year—a decrease because the requirements for admission have been raised to a completion of the sixth grade. The demand for stenographers and clerks is so large that almost no students have completed the entire four years' course, and no one who does reasonably satisfactory work has difficulty in obtaining immediate employment at a satisfactory wage.

School for the Deaf and Blind.—Forty-four pupils were cared for in this school during the year. These pupils come from various parts of the islands and are being taught to read, write, and perform such simple occupations as they can.

ATHLETICS.

Athletics play an important part in the work of the public schools. There is hardly one in the islands which does not have a baseball team, and the pupils are in every way encouraged to participate in some form of athletics. A great many field meets were held during the past school year, and the crowds which attended them were even larger and more enthusiastic than they would have been at similar events in the United States. During the carnival an interscholastic meet was held in Manila, at which the provinces which had won the interprovincial meets were represented. When athletics were first introduced into the schools emphasis was placed on such specialized games as baseball and track events. It was found that these games were not bringing the necessary physical training to the great majority of the pupils, and more recently such games as volley ball, pickaback relays, and the like have been introduced and emphasized. In these games practically the entire student body participates.

LEGISLATION.

The following legislation touching the bureau was enacted during the year:

Act No. 2069 of the Philippine Commission, appropriating the sum of ₱235,700 for the support of schools in non-Christian Provinces for the year 1912.

Act No. 2070 of the Philippine Commission, appropriating the sum of ₱46,000 for the construction of school buildings in the non-Christian Provinces.

Act No. 2110 of the Philippine Legislature, appropriating the sum of ₱100,000 for the establishment in the city of Manila of a School of Household Industries, and providing for 300 scholarships therein.

Act No. 2134 of the Philippine Legislature, providing for the appointment of 100 students to pursue a course of training at the Philippine Normal School, or at the Philippine School of Arts and Trades, and appropriating the sum of ₱30,000 therefor.

Act No. 2146 of the Philippine Legislature, authorizing provinces to provide from current funds for the support of scholarships in the University of the Philippines or in any other Government educational institution in the city of Manila.

Act No. 2182 of the Philippine Commission, appropriating the sum of ₱20,000 for the purpose of constructing at the teachers' camp, Baguio, the girls' dormitory for Filipino teachers.

Desired legislation.—The passage of legislation covering the following subjects is recommended to the Legislature:

1. A law authorizing municipalities to expropriate lands for school purposes. At present municipalities are permitted to expropriate lands for streets, cemeteries, and markets, and it frequently happens that exorbitant prices are asked for parcels of ground which are needed by the schools, simply because the council has not the power of expropriation.

2. Without recommendation I lay before the law-making body the question whether municipalities might not be given greater latitude in fixing the percentage of taxation for school purposes. I do so because in some municipalities where the revenue is insufficient, classes in the public schools are being maintained by voluntary contributions and this situation gives rise to some problems. Many people are unwilling to contribute to the support of the schools, but they send their children to them none the less. Of course if we have public schools, however they are supported, they must be open to everyone, and this condition is apt to result in misunderstandings and bickerings.

3. I also here reiterate my former recommendations that there be no further extension of the time when English is to become the official language of the government. Without again going into the reasons for this recommendation, I will only say that the frequent extensions of this period have worked great harm upon our schools and put their pupils at a marked disadvantage.

FINANCIAL STATEMENT.

The current appropriation for the bureau of education amounted to ₱3,610,000. In addition a balance of ₱22,626.35 was brought forward from preceding years to cover expenses which had been incurred during the fiscal year 1911 but which could not be paid until the following year. Expenditures for permanent improvements at Malabon, at the Central Luzon Agricultural Farm at Muñoz, and elsewhere, amounted to ₱27,987.95, leaving a balance of ₱3,604,638.40.

The total expenditures were ₱3,603,385.56, of which amount ₱2,612,090.70 were for salaries and ₱991,294.86 for contingent expenses. For the support of schools in the non-Christian provinces during the year the sum of ₱235,700 was appropriated by Act No. 2069, which, together with a balance of ₱23,950.10 provided by Act No. 1992, made a total of ₱259,650.10 available for expenditure. Of this amount ₱255,501.72 was expended, leaving a balance of ₱4,148.38, which was carried forward to the fiscal year 1913.

GENERAL.

During the year the following publications have been issued by the bureau:

Bulletins Nos. 37 and 38, School Buildings and Grounds, and School Buildings, Plans, Specifications, and Bills of Materials, covering the policy of the bureau with respect to building and school grounds improvements, and containing detailed information of service to those directly interested in the work.

Bulletin No. 40, Athletic Handbook for the Philippine Public Schools.

Bulletin No. 41, the Service Manual, a compilation of laws and regulations affecting the bureau of education.

Bulletin No. 42, Intermediate English II, for use in connection with the correspondence-study course.

Bulletin No. 43, Catalog of the Philippine School of Arts and Trades, published in March, 1912.

Bulletin No. 44, Libraries for Philippine Public Schools, will be in print shortly.

In addition to these bulletins the bureau has published the Eleventh Annual Report of the Director of Education, a seventh civico-educational lecture on coconuts, Volume V of the Teachers' Assembly Herald, and a statement of organization, aims, and conditions of service in the bureau of education. Four text books for use in the secondary schools have been printed: Commercial Geography, the Materials of Commerce for the Philippines, an Introduction to the Study of Colonial History, written from a Philippine viewpoint with reference to the objects and problems of colonization, a volume of Selected Short Poems by Representative American Authors, and a book containing Macaulay's "Samuel Johnson," Emerson's "Self-Reliance," and Lincoln's "Gettysburg Address." The publication of The Philippine Craftsman, a monthly magazine devoted entirely to the advancement of industrial instruction in the public schools, has also been undertaken.

The following statement of the director of education will be of interest:

During the past year the director of education has been in correspondence with the school authorities of a number of other countries, particularly those located in the Tropics, and enjoying practically the same conditions as obtain in these islands. Letters requesting information on 13 topics were sent out to about 70 countries, from nearly two-thirds of which replies have been received. A careful review of the correspondence shows that it is the aim of nearly every one of these countries to make education general, but as a rule the percentage of population attending school is much lower than in the Philippines. In very few cases is special attention being given to industrial education. The elementary schools are seldom considered in the plan of industrial instruction, the attention generally being confined to advanced technical and agricultural subjects. Much more stress is laid upon athletics and physical training in the Philippines than is given in other countries generally. The interest that the Filipino people take in public instruction is much greater than is apparently the case elsewhere. Reports seem to indicate that in a number of countries, at least, not only a lack of interest, but actual opposition is manifested.

PRIVATE SCHOOLS.

The work of standardizing the courses given in private schools has been continued. The course of study now offered in all approved schools and in the majority of those which have not yet received Government sanction is similar to that of the public schools. The degree of bachelor of arts is given at the end of a 13-year course. This course of study was prepared by the secretary of public instruction at the beginning of the school year 1910-11, and has since remained practically unchanged.

Decided progress has been made in improving the teaching force in private schools. Most new appointees during the past year were high or normal school graduates, and in the large majority of private schools primary and intermediate instruction is now given either by such graduates or by teachers who have been trained in other public schools. Almost without exception in the higher grades of the private schools, American teachers give the instruction in English. In several of the colleges the entire faculty is composed of American or English-speaking European teachers.

During the year nine private institutions were approved by the government; one being authorized to confer the degree of bachelor of arts on its graduates; two to grant high-school diplomas; four to give intermediate and two primary certificates. This makes a total of 25 private schools which have adopted the course of study prescribed by the department. These schools are using modern texts in most subjects and are doing work which reaches the standard set by the government. There are yet five or six colleges which will probably be able to reach this standard during the coming year.

In addition to the schools referred to, there remain some 28 or 30 which are endeavoring to bring their standards up to that of the approved colleges. Six or eight of these will eventually succeed, but it seems improbable that the great majority will ever approximate this standard. They may be found in Manila and many provincial capitals. As a rule they are conducted in private dwellings and present little semblance to a school or college. The masters appear to have little conception either of grading and classification or of school work in general. Entering pupils choose their own grades and boys of 10 or 12 years study subjects which properly belong in a college course. The probabilities are that if a pupil only pays the fees he is permitted to enter whatever grade he pleases. Students are found in these schools who have left better institutions in order to skip two or three grades by taking subjects which they are not qualified to study. The number of these schools is, however, decreasing. As the people learn more and more about instruction, they demand proper training for their children and any school which can not reasonably guarantee value received will not be able much longer to receive the patronage of the Filipino people.

Improvement in school grounds and buildings has also been made. La Concordia, Centro Escolar, Burgos Institute and La Salle have between them expended something over ₱200 000 in repairs and construction. Several projects for the erection of modern school buildings are now under consideration, and in most cases the schools will be moved out of the crowded districts to places where suitable

ground can be secured. As soon as the plans have been approved, the Jesuits expect, at a cost of ₱2,000,000, to erect their new Ateneo at Palomar Park, where they will have a campus of several acres. The Dominicans expect to spend, on the outskirts of the city, over ₱1,000,000 in new buildings for the University of Santo Tomas. The Liceo is also planning a new college outside the city. The Greater Liceo, as it is called, will, for the present at least, then become the greatest purely Filipino institution in the islands. Its directors intend to introduce secondary technical courses and to make the college in all respects thoroughly modern. Silliman Institute at Dumaguete is also preparing for large extensions. Over ₱100,000 in cash are to be spent for materials, the work to be done by students in the industrial college. At Jaro, in the Province of Iloilo, Bishop Daugherty has just completed the buildings of one of the finest colleges in the islands. Santa Scholastica Convent has secured a large tract of land in Singalong, where buildings for a new school will be erected, at an estimated cost of ₱250,000, the work to begin within a few weeks.

Thirty-four private schools are giving all primary and intermediate courses in English; nine are giving primary, intermediate, and high school courses in English; and two are giving all the courses in this language. Three years ago with but two or three exceptions these colleges did nearly all work in Spanish. In schools where instruction is given in English, English textbooks are used and English is used even outside the classes. The progress made in the use of English in the private schools has been, as may be seen, quite satisfactory. The colleges have done as much as they could to introduce this language without working hardships upon students. In many cases English can not be used in the higher grades until the students who took their preparatory work in Spanish have been graduated.

Until a comparatively short while ago, with few exceptions, only cultural courses were given in private schools, and most of their graduates looked forward to entering the practice of law. This has led to an overproduction of lawyers, many of whom are but poorly qualified and eke out a poor existence, while they could have become producers of wealth in the islands had their training been different.

The emphasis placed on industrial education in public schools has led to its gradual spread to the private schools, although the development therein will be slow until the public patronizing these schools realizes that its sons and daughters must do the work and take the courses which make for the best citizenship. The Belgian Sisters have established schools in Manila, Tagudin, and Bontoc, and offer to all their students a practical course in lace making. During the year a quantity of their lace has been sold in Manila and in foreign markets. These sisters have brought with them the ideas and experience of years of lace making and industrial work in Europe and India, and have been distinctly successful in their efforts to establish and build up one industry. They are planning to open schools in other of the larger cities of the islands.

The colleges for men have given but little attention to athletics, chiefly because proper grounds and equipment are lacking and their students had little physical instruction during their early years. A few have organized baseball, volley-ball, and basket-ball teams

and are doing some track and field work. Silliman Institute and La Salle College are distinct exceptions. These two schools have well-organized teams and lay particular emphasis on all branches of athletics.

During the past year the three hundredth anniversary of the founding of the University of Santo Tomas was celebrated in Manila. This, the oldest university under the American flag, is the only private university in the Philippines and has wielded a powerful influence over the lives of the Filipino people. From its classes have come many of the most distinguished citizens of the islands.

The enrollment in private schools of the better class has continued to increase since the work of standardizing the courses was undertaken by the department. During the year 7,882 students were in attendance in these schools, an increase of 888 over the preceding year. The reports from the various schools throughout the islands show that 424 of the 667 teachers employed are prepared to give instruction in English.

BUREAU OF AGRICULTURE.

PERSONNEL.

On September 13, 1911, Dr. George E. Nesom resigned the directorship of the bureau and Mr. Frederic W. Taylor was appointed director of agriculture. Mr. Taylor arrived in the islands and entered upon the duties of his office last October. Until Mr. Taylor's arrival Mr. H. T. Edwards, assistant to the director, was in charge of the bureau.

There has been an increase of 1 American and 22 Filipinos in the classified positions.

GENERAL.

During the year the islands were visited by a prolonged drought which affected the growth of all staple crops and caused suffering and want in localities where the people depend for their welfare upon the success of a particular product. In those where several crops are grown conditions were much more normal. As a rule in the Philippines a particular district is known for a particular crop, such as Cagayan and Isabela for their tobacco, Negros for its sugar, and so on; and the people are accustomed to raise only that crop and have neither seed for nor interest in others. A year, therefore, in which their crop is a failure is one of acute distress. The policy of the bureau has been to encourage the people to plant diverse crops so that in case the tobacco or sugar should fail there might be corn or rice or some other food or revenue-producing staple with which they might tide themselves over the period which must elapse before the next regular crop is harvested.

The long dry season was accompanied by unusually large swarms of locusts and other pests because of the failure of their customary food. It was particularly severe in its effect on the rice crop, which was probably 40 per cent less than that of the preceding year. Sugar was not so badly affected and showed a satisfactory increase both in quantity and value of exports. There was a small decrease in the quantity of hemp, but an improvement in quality led to a slight increase in the value of that exported. Although the amount of

tobacco produced was somewhat less than that of the preceding year, there appears to have been some improvement in its quality. The partial failure of the rice crop resulted in a large increase in corn planting, and while the crop of last year was affected by the drought the indications are that the 1913 crop will be the largest in the history of the islands. Copra was the banner crop, and localities which raise large numbers of coconuts have enjoyed unusual prosperity. For the first time this product led all others in the value exported.

The most important work which the bureau has in hand is the eradication of rinderpest, and the corresponding work of encouraging the development of the herds which were so largely destroyed by disease. Of next importance is the perfecting of a satisfactory method for bringing to the people a knowledge of its work so that larger and better crops will be grown. It is now endeavoring to keep in touch chiefly through field demonstrations. Two projects of this character are already well under way and others are planned. The first cooperative demonstration station will shortly be established in Iloilo, and it is hoped to multiply these stations until there is at least one in each province.

DIVISION OF ANIMAL HUSBANDRY.

This division is charged with the supervision of live stock belonging to the bureau and with the purchase in the islands of stock for the government. It arranges for live-stock exhibits and has control of public live-stock breeding.

Public live-stock breeding.—During the year stallions have been available for public use, without charge, in 15 provinces and sub-provinces and 695 mares have been bred. Stallions, bulls, boars, and billies are always available for service at the Alabang Stock Farm and the La Carlota Experiment Station; and at other stations some animals are kept for that purpose. The public has not taken readily to the use of government animals for breeding purposes, because the overcoming of its prejudice against new methods is slow; but their use is increasing, and in those districts where animals have been kept for a long time there is a marked improvement in the quality of the live stock.

Live-stock exhibits.—A large live-stock and poultry show was held in connection with the Philippine Exposition at Manila during the month of February, and a provincial live-stock show at Virac, on the island of Catanduanes, in July, 1911. The bureau also exhibited live stock at the Iloilo fair in December, 1911.

Alabang Stock Farm.—The Alabang Stock Farm has been noticeably improved during the year, while the cost of its maintenance has been reduced. One thousand four hundred and eighty-five meters of new road, one bridge, two culverts, and a 100-ton silo of reenforced concrete were constructed. The manufacture of cement posts for fencing has been continued. Thus far these posts have proved thoroughly satisfactory. They not only cost less, but they are more durable than those made of hardwood. There were under cultivation approximately 50 hectares of land, on which, in a large part, forage crops for the feeding of farm and laboratory animals were grown. Special attention was given to the production of hay, 12 tons of Rhodes grass being cured and baled. The condition of the horses is

satisfactory and the cattle herds have done well in spite of the drought which, in a large part, destroyed the pasturage. Good results have been had from the Chinese cattle and their crosses. They make excellent work animals and are easily subsisted on the natural range grasses. The Indian herd has also done well. They, too, are good foragers, but owing to their roving disposition are not so easily herded as are the Chinese cattle. For hauling they are superior to the latter. The demand for well-bred pigs has thus far exceeded the available supply, and the number of breeding sows will be increased.

Trinidad Stock Farm.—The maintenance of animals which can not subsist on the country has proved expensive in the Benguet hills because of the cost of transporting forage. For this reason most of the horses were removed to other stations and little work done at Trinidad. At the close of the year there were 4 horses and 95 cattle at the station.

La Carlota Experiment Station.—The cattle at La Carlota did well, subsisting entirely on native grass, which kept them in excellent condition. The horses showed considerable improvement. The natural increase at this station was: Horses, 10; cattle, 39; carabao, 7; goats, 9; swine, 12.

Ilagan Tobacco Station.—The Ilagan Tobacco Station has, in addition to its other work, undertaken the breeding of stock, and to this end has been supplied with one American stallion, one Nellore bull, one Berkshire boar, and three Berkshire sows.

VETERINARY DIVISION.

On June 30 last the force of this division consisted of 41 veterinarians, 64 American live-stock inspectors, 223 Filipino live-stock inspectors, 1 pathologist, 1 veterinary entomologist, 4 American clerks and stenographers, and 2 Filipino clerks and stenographers—a slight reduction from the force on duty at the beginning of the year.

Rinderpest.—Animal disease is now a comparatively small factor in the industrial economy of the islands, but potentially it is a very large factor. During the year only 4,312 new cases of rinderpest were reported among the cattle and carabao, with 2,847 deaths. The census of 1903 states that during the year 1902, 629,176 cattle and carabao died of disease, chiefly rinderpest. The following table shows the known amount of infection at the beginning and end of the year:

Week ending—	New cases per week. ¹	Deaths per week. ¹	Provinces infected.	Municipalities infected.	Barrios infected.
July 1, 1911.....	254	230	17	64	170
June 29, 1912.....	23	19	11	34	69

¹ Cattle and carabao.

The comparatively small number of deaths from rinderpest has retarded but little the rapid increase in the herds of carabao and cattle. The percentage of deaths from this source compared to births is almost negligible. This does not mean, however, that our work has ended. If the efforts of the government were to any considerable extent relaxed and the disease allowed to spread, whole provinces

would again be swept clean of their work animals. The existence of disease also hinders capitalists from investing large sums in cattle raising in the Philippines, and the chief work of the bureau will not be ended until rinderpest has been completely eradicated from the islands and all sources of outside infection eliminated.

The method followed in combating the disease was the same as last year—that is, through strict quarantine—and the satisfactory results seem to justify the belief that this is the only feasible method for making headway against rinderpest. Effective quarantines have been possible through the cooperation of the military authorities. The division commander, Maj. Gen. J. Franklin Bell, has placed at the disposal of the government a large number of scouts, who have rendered valuable service. On the last day of the year there were on duty in this work 30 officers and 1,390 enlisted men, belonging to 13 companies of the Fifth, Seventh, and Ninth Battalions of the Philippine Scouts. Not only have the men given splendid service, but their officers have shown enthusiasm, patience, and tact in discharging duties which were often disagreeable, and their cooperation could not have been fuller had they been an integral part of the organization of the bureau of agriculture. Provincial officials and, to a considerable extent, the people in general are coming to appreciate the necessity of quarantines and are cooperating in a measure which makes effective work easier as the campaign progresses.

The following table shows the extent to which disease was prevalent during the last eight days of the year:

	Suspects.		New cases.		Convalescents.		Deaths.	
	Cattle.	Cara- bao.	Cattle.	Cara- bao.	Cattle.	Cara- bao.	Cattle.	Cara- bao.
Pangasinan.....	5	.....	6	.....	5	.....	1
Zambales.....	5	.....	2	.....	4	.....	2
Pampanga.....	6	.....	9	.....	3	.....	5
Rizal.....	9	.....	5	.....	7	.....	2
Laguna.....	3	.....	2	.....	13	.....	2
Capiz.....	1	.....	4	.....	1
Noilo.....	3	.....	3	.....	20	.....	7
Total.....	31	.....	28	.....	56	.....	20

It is only fair to state that this table is not conclusive. There is, without doubt, some unreported disease, particularly in the northern part of Luzon. From time to time territory adjacent to the foothills of Benguet is infected by animals coming from the north, although every effort is being made to prevent their introduction from this territory until the bureau has had an opportunity to move its force into northern Luzon and stamp out such disease as exists there.

Other diseases.—Foot-and-mouth disease was imported from Indo-China during the year, but its spread was promptly checked. No cases of contagious pleuropneumonia have been found outside of Sisiman matadero, which seems to indicate that the prompt measures taken on the discovery of this disease some two years ago were successful in preventing its introduction. During the year scabies, or mange, were found in carabao received from Formosa but no cases have developed outside the quarantine yards. Surra stil

exists in the Archipelago. Glanders, anthrax, and similar diseases also exist, but to no large extent.

Quarantine.—The apparent impossibility of preventing the introduction of rinderpest through animals coming from China has led to a continuance of the 90-day quarantine against Chinese ports, and although the matter has been gone into with the utmost thoroughness in an endeavor to devise a method which would permit the importation of cattle from Hongkong, no other plan has been found which would provide any reasonable assurance of immunity against reinfection. Rinderpest was introduced in cattle from French Indo-China causing a considerable outbreak in the Province of Iloilo, and subsequent outbreaks in Capiz were also directly traceable to these cattle. Prior to their shipment, animals imported from French Indo-China had been examined by a veterinarian of the bureau of agriculture maintained there for that purpose and by French veterinarians, and had undergone a 10-days' quarantine on their arrival in the Philippines. In spite of these precautions rinderpest was introduced and nothing remained but to put in effect a 90-day quarantine on shipments of cattle from this territory.

Cattle quarantine stations are maintained in Manila and Iloilo, that in Manila being located at Pandacan on the Pasig River. The cattle brought in are loaded directly onto lighters and taken by water to the station, where they are kept during their period of quarantine, after which they must be removed from the station, no sales of stock being permitted there. The station at Iloilo is entirely inadequate and steps are being taken to provide a more suitable site.

Meat inspection.—The bureau of agriculture inspects animals presented for slaughter in the abattoirs maintained in Manila and Sisiman. The system in operation is based upon that in use in the United States, and it is believed that the ante mortem and post-mortem inspections which are now conducted by veterinarians who have been specially trained for this work are as thorough as could be desired. In the Manila matadero 76,336 animals were slaughtered, of which 1,022 carcasses and 77,358 parts were condemned. At Sisiman, where only animals from Australia are killed, 8,104 cattle and 36 sheep were inspected and 167 carcasses and 5,893 parts condemned.

Simultaneous inoculation.—During the year simultaneous inoculation was practiced on 1,205 cattle and carabao, of which 310 died, a loss of about 25 per cent. These figures do not encourage the belief that it would be feasible to practice simultaneous inoculation upon animals received from infected countries.

DIVISION OF AGRONOMY.

The greater part of the work of this division has had to do with rice, forage crops, and hay grasses.

Rice.—Extensive experiments with both upland and lowland rice have been carried on in the endeavor to determine the varieties which produce the best crops in the Philippines. A full report of this work is now being published as Bulletin No. 22 of the bureau of agriculture, and can be obtained on application to the bureau.

The value of the rice imported into the Philippines last year amounted to ₱21,139,898. This year it is believed the figures will be even larger. Perhaps our greatest single economic problem is that of producing enough rice to feed the country. There is no reason why this can not be done. Land is available everywhere; there are work animals in plenty, and the people understand the culture of rice more universally than that of any other one crop. Plans, somewhat indefinite as yet, are being formulated by which it is hoped that the people will be induced more and more to raise rice, with the result that in a few years the Philippines, which are to so large an extent agricultural, may cease the importation of this staple food.

Forage plants.—The best results in making hay have been obtained from Rhodes grass (*Chloris gayana*). Extensive experiments with this grass have been carried on at Alabang and in specially prepared ground at San Miguel, Tarlac, although operations at the latter station were hardly extended enough to be conclusive at the time of writing this report. At Alabang the grass was grown under irrigation and it is believed that if it is sown in October two or even three cuttings should be obtained during the dry season, in which only can it be cured. More conclusive results will be had from experiments conducted during the present year. The hay from this grass appears to be equal in every way to timothy and should be worth at least ₱60 a ton on the Manila market. Guinea grass continues to give excellent results for green forage.

As I have said in another report, a very large amount of money is each year sent from the country to buy forage for its horses and cattle. It has now been shown that satisfactory hay can be raised in the Philippines at a cost which will enable the producer to market it for a lower price than that paid for the imported product and yet allow him a reasonable profit. The Alabang Stock Farm this year raised on a comparatively small acreage almost enough forage for its own animals, and there is no reason why, within the next few years, the government should not raise all the forage it needs. There still remains the Army, which is the largest single consumer of imported forage; and the military authorities are cooperating with the officials of this government in the endeavor to encourage the production of a satisfactory hay by the farmers of the Philippines.

Experiments with a substitute for imported grain have been continued at the Pandacan forage factory and they are now extended enough to permit some definite statement of results. Grain ration known as No. 14 consists of 61.5 per cent corn meal, 15 per cent Manchurian bean meal, and 23.5 per cent wheat bran. It has about the same nutritive value as oats. It has been used particularly for horse and mule feed, although equally good results have been obtained in feeding it to cattle, hogs, and poultry. The corn used at the factory was produced in the islands and more than 60,000 kilos of corn meal were sold. The increasing demand for corn meal and for mixture No. 14, which contains so large a percentage of this cereal, seems to point to the conclusion that in time the farmers of the islands may produce a large part of the ₱2,000,000 worth of stock feed which is annually consumed here.

Sugar cane.—Extensive experiments with imported sugar canes have been made during the year, and at La Carlota about 40 hectares

of cane were harvested with a production of some 2,500 piculs of sugar. The quality of Philippine sugar cane is fairly satisfactory, but milling operations are still so crude that a very low-grade sugar is produced. This puts our planters at a distinct disadvantage in competing with those of other countries, and the Government has in every proper way encouraged the importation of modern machinery. One large modern mill has already been erected and others are in process of completion. The handsome profits which followed the opening of the American market to Philippine sugar greatly stimulated its production and there is little doubt that this industry will of itself continue to prosper and the quality of the product to improve. The bureau of agriculture will continue its experiments with canes and with the methods of combating pests which attack them.

DIVISION OF HORTICULTURE.

In addition to purely horticultural work, this division has to do with seed and plant introduction and distribution, entomological work, and exercises a general supervision over the Singalong Experiment Station, the Lamao Experiment Station, the Trinidad Garden, and the Ilagan Tobacco Station.

Seed and plant introductions.—The principal introductions during the year were 2,000 plants of Hawaiian pineapple and 1,000 plants of Red Spanish pineapple. Some 27 varieties of native citrous trees have been collected and about 50 varieties of oranges, pomelos, limes, and lemons introduced from foreign countries. The efforts to introduce the avocado, or, as it is more commonly known, the alligator pear, have been continued and some 200 seeds received from Honolulu in November have been planted at Lamao. Budwood of several varieties was obtained from California and Hawaii and for the first time in the history of the islands successfully budded onto seedlings at that station.

Seed and plant distribution.—The former policy of furnishing large collections to a few applicants was this year changed to that of furnishing small collections to all applicants. This change led to a phenomenal increase over 1911. In that year about 5,000 allotments of vegetable seeds were recorded; about 50,000 were made during the past year. From August to March from 60 to 100 requests a day were received by mail alone, and it is estimated that nearly half a million individual packages of seeds were distributed. The school gardens of the bureau of education have immensely increased the planting of vegetables, and this as much as anything else has led to the large increase in the demand for seed.

Some 60,000 to 75,000 mulberry cuttings were distributed during the year, as against some 20,000 in the previous year. A small charge for these was made to private parties. About 2,000 packages of selected papaya seed were given away and the results of this work can be seen in the quality of the papayas now offered for sale in our markets. A considerable part of the seed distributed was raised by the bureau.

Entomological work—Locusts.—At its last session the Legislature made an appropriation for the definite purpose of combating the ravages of these insects and an entomologist was obtained and placed in direct charge of the work, which is carried on through provincial locust boards. An outbreak in Cebu was the worst single attack

reported for several years. The swarm covered about 15 square kilometers of territory and swept practically across the island. The presence of the entomologist in Cebu was of great benefit and resulted in saving tens of thousands of pesos worth of property. During the year outbreaks were reported in 15 Provinces. With few exceptions they were promptly controlled.

Miscellaneous pests and diseases.—The attacks from rats were more severe than usual. Good success in exterminating them was had with arsenic. Serious losses to maize, rice, and young cane came from the worst plague of caterpillars which has been reported since 1910. During the year some 400 communications relative to plant pests and diseases were received and answered.

Trinidad Garden.—The Trinidad Garden is maintained for the purpose of testing temperate and tropical vegetables as well as supplying the local demand for vegetables at Baguio. Efforts have been made to have private parties undertake this latter work and it is hoped that the growing of vegetables for market by the Government may be completely ended within the next year or two.

Lamiao Experiment Station.—The experimental work in horticulture has been largely concentrated at Lamiao, which has been considerably improved. Large numbers of papayas have been bred and extensive tests with pineapples undertaken. One of the most important discoveries made by the horticulturist was the possibility of vegetative propagation of cacao by buddage. A considerable area is devoted to nurseries and small plots of the principal tropical fruits, such as anonas, avocados, guavas, chicos, mangos, tamarinds, etc.

Singalong Experiment Station.—During the year more than a third of the Singalong Station was transferred to the city of Manila. There is a real need for this station; it serves as a central point for handling live stock which must be brought to Manila for transshipping, and for preserving until they can be transferred to a permanent location plants and seeds which are received from abroad. Its largest single crop continues to be Guinea grass.

Ilagan Tobacco Station.—During the year the superintendent's house at the Ilagan Station was finished and several smaller buildings constructed. More experiments with tobacco were conducted this year than have ever been carried on before, although the season was rather unfavorable. Plans were made, however, and the ground laid out so that the experiments of the present year should be particularly valuable to tobacco growers. The greatest practical value obtained from the station was in the cooperative work carried on throughout the entire Cagayan Valley. Particular attention was given to the cleaning of seed; and more than 1,700 planters took advantage of the opportunity offered them. In the single municipality of Ilagan there are now 613 curing sheds, where practically none existed a year ago. Emphasis has also been laid upon the multiple crop system; that is, that planters should raise other things than tobacco.

FIBER DIVISION.

During the year this division made a study of fiber and other industries of Java; made exhaustive investigations in hemp, maguey, and sisal; and devoted itself to the particular study of kapok and of introducing cotton into the Philippines.

Hemp.—The study of this, our most important fiber, which was begun in 1909, was continued. As a result of its investigations, the bureau has endeavored among other things to discourage the general practice of planting camotes as a cover crop in fields of young hemp. Exact figures showing the production and exportation of hemp during the year are not yet obtainable, but it is believed that the exports are somewhat less than last year, although somewhat greater in value. Because of defective methods of cleaning and preparing for market, the bulk of the fiber produced is greatly inferior to what should be the standard grade. The work of persuading growers to produce a better quality has not been encouraging. In many sections they claim that they are at the mercy of the local buyer and, so far as prices are concerned, it makes little difference what grade of fiber is produced. The work will be continued, however, and it is hoped that little by little conditions will be bettered. The preparation of knotted hemp for export has been started and the industry seems to promise rapid development and good returns. In time knotted hemp should become an important export.

Maguey and sisal.—Not a great while after maguey had come to be a product of importance, there came a great decline in the price of hemp and other cordage fibers. This decline gave maguey production a setback from which it has not yet recovered. Reasonable profits from its growing can be made, particularly if proper methods of cutting and cleaning are followed, and the bureau will continue its work of introducing these methods.

Kapok.—Particular study was made of the market for kapok during the year and the results communicated to the growers. Special attention was given to the question of machinery, and another year should see considerable growth in the production of kapok for export.

Cotton.—Only a small quantity of cotton is now grown in the Philippines, but the bureau has, during the year, gone into its production with a view to determining whether it would be advisable to encourage the planting of this crop in an effort to supply the local demand for raw cotton in the islands. The investigations are still inconclusive.

DEMONSTRATION AND EXTENSION WORK.

Agricultural extension work was first undertaken in 1907 with the appointment of a superintendent of agricultural extension work. For three years it was confined largely to an investigation of Philippine agricultural conditions. During the year 1911 a lecture campaign was organized and carried out in 18 provinces. The work of last year was directed toward the establishment of cooperative demonstration projects in several different provinces. The difficulty is, and has been, to secure competent men who are willing to remain in one district sufficiently long to get results. In the central office this work is confined largely to the distribution of printed matter and the preparation of the permanent mailing list. The central office also largely prepared and installed the agricultural and horticultural exhibit at the first Philippine exposition, held last February. Cooperative work with the Philippine Railway Co. is being carried on in Cebu, Iloilo, and Capiz Provinces. Some 23,500 ears of selected seed corn were purchased by the bureau and paid for by this company, to be used on 25 demonstration plots. Considerable work was also done

in Batangas, the farmers showing a commendable interest, and little difficulty was found in obtaining demonstration plots in the different municipalities. During May nine plots had been prepared for planting and five actually planted, and at the close of the year the work was being carried forward as rapidly as possible. Corn and rice are the two crops so far taken up, but it is planned to plant sugar cane in the sugar districts. Seed have been distributed and some extension work done in the Subprovince of Amburayan. Arrangements have been made to establish a demonstration project in the Mountain Province under the supervision of an experienced American inspector. In Bohol work was started in May and during that month and June the inspector assisted in laying out school gardens and in the fight against locusts.

The field for the development of demonstration and extension work in the Philippines is practically unlimited and as rapidly as our resources will permit a demonstration and extension project should be begun in each province. The bureau's chief difficulty has always been actually to bring the results of its investigations to the knowledge of the people and in this way improve agricultural methods. Personal contact counts for far more than the dissemination of printed reports and striking improvement has been found in those localities in which practical work was carried on.

PUBLICATIONS.

The chief publication continues to be the Philippine Agricultural Review. The two most noteworthy changes in this publication were the elimination from its pages of clipped articles and the publication of special numbers devoted largely to a particular subject. The Review has now been put on a subscription basis although enough free copies are sent out to the towns of the islands to place the information contained in the paper at the disposal of anyone who wishes it.

The following bulletins, circulars, and reports were issued during the year, copies of which can be obtained on application to the bureau:

- Bulletin No. 18, The Mango. P. J. Wester.
- Bulletin No. 19, Experiments on the Efficiency of Anti-Rinderpest Serum. A. R. Ward and F. W. Wood.
- Bulletin No. 20, Notes on the Muscular Changes Brought about by Inter-muscular Injection of Calves with the Virus of Contagious Pleuro-pneumonia. W. H. Boynton.
- Bulletin No. 21, A study of the Normal Blood of Carabao. W. H. Boynton.
- Special bulletin, The Sugar Industry of the Philippine Islands. G. E. Nesom, four collaborators.
- Special bulletin, A Handbook on the Sugar Industry of the Philippine Islands. G. E. Nesom, H. S. Walker, three collaborators.
- Circular No. 2, El Semillero de Tabaco. R. W. Rowe.
- Circular No. 5, The Tobacco Beetle. D. B. Mackie.
- Circular No. 6, Cultural Directions for Papaya (Tagalog, Cebuano). P. J. Wester.
- Circular No. 7, Coconuts (Spanish, Tagalog, Pangasinan, Cebuano, English). O. W. Barrett.
- Circular No. 8, Locusts. D. B. Mackie.
- Circular No. 9, Directions for Planting Vegetables and Flowers (Tagalog, Ilocano, Pangasinan, Cebuano). P. J. Wester.
- Circular No. 10, Directions for Planting Forage Seeds and Roots. O. W. Barrett.
- Circular No. 11, Seed Cane Distribution. O. W. Barrett.
- Circular No. 12, Plant Pest Remedies. P. J. Wester.
- Circular No. 13, Rats. D. B. Mackie.
- Circular No. 14, Corn-blade Fodder (Spanish). C. M. Conner.
- Circular No. 15, The Mango. P. J. Wester.
- Reprint, The Rinderpest Problem. A. R. Ward.
- Reprint, The Propagation of the Avocado. P. J. Wester.

In conclusion, it may be repeated that the chief work of the bureau during the coming year must be the campaign against animal diseases, but it is hoped that this will be the last year in which it will be the work of paramount importance. Following this the chief development must come through cooperative field demonstrations.

BUREAU OF SUPPLY.

The purchases made by the bureau of supply during the year amounted to ₱7,700,417.31, divided as follows:

In the local market, Manila (61.28 per cent of the total).....	₱4,718,927.37
In the United States (36.86 per cent of the total).....	2,838,718.64
In all other foreign countries (1.86 per cent of the total).....	142,771.30
Total.....	7,700,417.31

If there is added the cost of the rice bought under the provisions of Act No. 2076, the total purchases amounted to ₱9,336,329.15. The sales, exclusive of rice, amounted to ₱7,518,357.20; of these ₱5,730,964.92 were to the various government bureaus and offices and ₱1,787,392.28 to the provinces and municipalities. The volume of business transacted this year was something more than 25 per cent greater than that of last year, and during the past five years the volume of business has almost doubled.

The gross earnings for the year amounted to ₱658,864.93, while the cost of operation was ₱421,194.72, leaving an apparent net gain of ₱237,670.21. Against this gain there must be written off the deterioration of stock on hand, of land and water transportation equipment, and to it must be charged the completion and equipment of the new warehouses, the erection of additional lumber sheds, and the cost of moving the stock to the new location.

The cost value of merchandise belonging to the bureau on hand at the close of business June 30, 1912, was ₱2,334,876.28. The percentage of operating expenses to the net cost value of sales during the year was 7.49, as compared with 6.30 last year. The increase was brought about by expenses incurred in handling rice under the provisions of Act No. 2076, for which reimbursement was not received, and by receiving and stacking a two years' supply of lumber in the new lumber yards.

PERSONNEL.

The regular appointments under the civil-service act were 6 Americans and 18 Filipinos, while 6 Americans and 10 Filipinos were separated from the service; 25 Americans and 53 Filipinos were given temporary and emergency appointments. As I have said, within the last five years the business of the bureau has increased almost 100 per cent, and there has been no corresponding increase in the personnel. In consequence the employees are badly driven, and it is difficult properly to transact the work of the bureau. A careful study of the present organization is now being made with a view to adjusting it to meet the greatly increased demands, and enough employees will be added to enable the purchasing agent to fulfill his duties promptly, expeditiously, and economically.

LUMBER.

For many years the government purchased from time to time such lumber as it needed for its immediate requirements. The result was most unsatisfactory. The market supply of properly cured lumber was so small that unseasoned timber had to be used in construction work, with the result that doors and windows soon warped out of shape, floors had to be taken up and relaid, and much unnecessary expense was added to the cost of public works. To remedy this situation the establishment of a lumber yard was decided upon, and during the year six sheds, capable of housing about 3,000,000 board feet, were erected. Six more will be built this year. These sheds should enable us to keep on hand enough properly cured lumber to meet promptly our needs. The yard will be of particular value in enabling us to build expeditiously and at a minimum cost the large number of schoolhouses for the construction of which the Legislature has appropriated funds.

TRANSPORTATION.

All hauling, except of coal and lumber, is now done by electric trucks at about one-half the cost of what it was when horses and wagons were used. The bureau also owns and operates a fleet of 16 lighters and 1 lorch, but depends on the bureau of navigation for its launch service.

STANDARDIZATION.

The bureau carries so large a stock of staple supplies, chiefly because the government, in its various branches, uses such varied makes of standard articles, and the purchasing agent must furnish what requisitioners call for. If these articles were standardized, and only one brand was bought and furnished at a time, a large saving could be made each year. This matter has been the subject of discussion before, and it is hoped that during the coming year some definite scheme of standardization may be adopted.

SURCHARGES.

One of the most annoying features of Government purchases is the number of requests which are continually being made by various bureaus for exemption from the payment of the duly authorized surcharge. The reasons advanced for exemption are varied, but the most usual is that due to special circumstances; the cost of making the purchase will not amount to 10 per cent. The theory under which the bureau of supply operates is that the surcharge will be fixed in an amount adequate to furnish during the year sufficient funds to enable the government to operate the bureau without making a definite appropriation therefor; and it by no means follows that in individual cases the surcharge actually represents what it costs the bureau of supply to make the purchase—sometimes it is more, sometimes less than the amount received, and it is not believed to be good administration to allow frequent exemptions.

With a total capital and surplus of ₱3,661,254.49, the bureau now has an overdraft of approximately ₱1,250,000, due primarily to the enormous increase of business without a corresponding increase in capital, but in a considerable part also to the fact that the law requir-

ing bureaus to take and pay for what they estimate their needs to be has not been strictly enforced, and to the further fact that there is much difficulty in effecting prompt payment for goods purchased. Chiefly because bureaus have not taken what they estimated they would need, there has been accumulated during the years of its existence, a larger stock than there is any need for, and steps should be taken promptly to reduce this stock, crediting the proceeds to the overdraft, and the amount of supplies kept on hand should be the smallest possible to enable the government to serve its needs with dispatch.

NEW BUILDINGS.

Two new reenforced concrete warehouses have been erected on the fill and will be ready for occupancy as soon as a satisfactory flooring has been laid. Some difficulty has been found in obtaining a proper foundation on this newly made land, but recent tests made by the engineers of the bureau of public works lead us to hope that the buildings will be ready for occupancy during the present year. These will relieve the bureau of the large rental which it is now paying. Additional reservation for the purposes of the bureau should be made not only of land adjacent to these warehouses, but a suitable frontage on the river should be set aside for its use in connection with the lumber and coal yards.

Of the total purchases made by the bureau during the year, something more than 68 per cent were from local dealers in the Philippine Islands. In making purchases local dealers have been and will continue to be given every consideration, but there are some things which it seems they cannot advantageously handle; for instance, structural steel products and iron roofing, textbooks for the bureau of education, printing and hospital supplies, and articles for the purchase of which the government is able to take advantage of the contracts made by the Government of the United States. The textbooks are published in the United States especially for the use of our schools, and contracts for an adequate supply are awarded to the various publishing companies, who either send representatives to the islands or maintain them here permanently. There are no exclusive agents for structural steel products and galvanized iron roofing, and by buying these articles directly from the manufacturers in the United States the government each year effects large savings, which are used either to increase the number of schoolhouses or to build more roads and bridges throughout the islands. In a great number of cases instead of buying articles directly from the manufacturers the government has bought from the manufacturers' agent in Manila, allowing him a flat profit of 10 per cent in connection with the transaction, in the endeavor to stimulate and encourage local enterprise.

THE DIVISION OF COLD STORAGE.

The gross receipts in this division during the year were ₱593,091.62, an increase of something more than ₱20,000 over the preceding year. Expenditures amounted to ₱475,613.31, leaving net receipts amounting to ₱117,478.32. The gross earnings from operations were ₱591,486.26, and the total expenses ₱438,191.42, leaving net earnings of ₱153,294.84. During the year the reconstruction of one corner of the ice plant was completed and similar work in the opposite corner has been begun. The reconstruction of the entire cold-storage

space is necessary, but inasmuch as this can be done only a section at a time, the work will require several years for completion. A new boiler has been received and will be immediately installed so that a repetition of the scarcity of ice and distilled water which was felt during the past hot season will not occur.

My recommendation heretofore made, that the ice plant be sold, was considered but not acted upon favorably by the Legislature at its last session. I am still of the opinion that the government should divorce itself from the business of manufacturing and selling ice and distilled water and providing cold-storage space for commercial firms, but if this may not be done, I recommend that the law under which the division of cold storage is at present operated be amended in some respects. In any event, ice and water should be furnished to all consumers at a price commensurate with its cost of manufacture, but not so low not as to allow private manufacturers of ice and distilled water to market their product at a legitimate profit. Ice and distilled water are absolute necessities in the Tropics, and every proper effort should be made to bring them within the reach of the poorer classes.

BUREAU OF PRISONS.

The prison population of the Philippines June 30, 1912, was as follows: Bilibid Prison, 2,640; Iwahig Penal Colony, 1,134; working at Corregidor, 998; working at Baguio, 130; Luneta police station, 24; San Lazaro Hospital, 56; Hospicio de San Jose, 8; Lolomboy Industrial School, 46; constabulary, 23; provinces (insular), 5; confined in provincial jails, 1,846; in all, 6,910, an increase over last year of 474. The number of insular prisoners was 5,071, as compared with 5,064 of the year before.

The crimes for which prisoners in greatest numbers are sentenced are adultery, rape, brigandage, embezzlement, homicide, murder, robbery, theft, violations of the cedula and opium act, and infractions of city ordinances. This year there was a decrease of about 35 per cent in commitments for adultery and a considerable decrease in convictions for brigandage. Nine hundred and forty-eight persons were sent to prison for theft, as compared with 750 during the preceding year.

COST OF MAINTENANCE.

The gross cost of the maintenance of each insular prisoner during the year was ₱126.993, a decrease of ₱5.205 as compared with the cost of the preceding year. The daily cost per prisoner at Bilibid Prison was ₱0.33295, a decrease of ₱0.01275. The daily cost of maintenance for each prisoner at the Iwahig Penal Colony was ₱0.405, a reduction of ₱.0142 from the cost of last year. The daily net cost of each prisoner at Bilibid was ₱0.306, and at Iwahig ₱0.369, a decrease of ₱.0289 and ₱0.0121, respectively. The average daily cost of subsistence for prisoners during the year was as follows:

	American and European.	Filipino and Asiatic.
Bilibid.....	₱0.333431	₱0.1411923
Bilibid Hospital.....	.2604949	.2604949
Iwahig Penal Colony.....		.15468435
Corregidor.....		.1371326
Baguio.....		.1626478

BILIBID PRISON.

Health and sanitation.—General health conditions at Bilibid Prison have been excellent during the year. No outbreaks of disease were reported.

The work of segregating for special treatment tubercular patients was continued. The installation of the new sewer and drainage system for the prison has greatly improved its sanitation and should enable us to provide more adequate bathing facilities for the prisoners than have been possible in the past.

School Work.—School work has been continued throughout the year and an effort was made to give some instruction to all finally sentenced prisoners. One frequently finds a man who has been taught to read and speak English during the time he has spent in prison.

Improvements.—The buildings have been very generally repaired during the year and all roofs and frame structures repainted. A new roof was placed over the machine shops and four new guard towers built of angle iron and concrete.

Industrial division.—The output of the industrial division during the year was valued at ₱306,111.37, with a net profit to the prison of ₱46,343.68. The larger part of this work is done for the Insular Government, only ₱49,437.87 being charged against provincial governments and the general public.

An important departure was made during the year in establishing lace making and embroidery for women prisoners. The women have readily taken to the work, which not only adds to their cheerfulness and contentment but teaches them a useful occupation which they can follow after their release. During the year an average of 1,100 prisoners were assigned to the industrial division, for whose services ₱37,642.21 was paid to the prison division.

PROVINCIAL PRISONS.

Since provincial prisons were brought into closer touch with the director of prisons and his associates some two or three years ago, they have shown marked improvement. Regular monthly inspections are made by constabulary officers, whose recommendations are carefully considered and such as call for action submitted to the provincial governors. A commendable spirit of cooperation has been shown by these governors, who, in most instances, take a real interest in their prisons and show a desire to improve them. Fourteen provinces have already sent their wardens to Bilibid for a course of instruction in prison management. Provincial wardens should be placed in the civil service, and continue in office irrespective of political changes in their provinces.

IWAHIG PENAL COLONY.

On January 1 the superintendent of the colony, Mr. Carrol H. Lamb, resigned his position, and on May 6 Mr. C. F. Vance, the assistant superintendent, also resigned. These resignations have somewhat unsettled conditions at the colony, but immediately upon Mr. Vance's resignation Mr. Quillen, the second assistant director of prisons, was sent to the colony as acting superintendent and has managed it in a particularly efficient manner.

Conditions at Iwahig are better than they have ever been before. The preliminary work of clearing the land and providing quarters has been done, and the energies of the colony can be concentrated upon the growing of enough rice to support its population. An irrigation system has been worked out, and a large force of men is at work constructing paddies, on the greater part of which two crops of rice can be raised each year. This work should be completed within the next two years, and with the herds of cattle, the fish traps, and the large amount of vegetables which are raised, should furnish all the food needed by the colony. Attention can then be given to the construction of permanent buildings and the transfer of the colony to its new site.

The population of the colony on June 30 last was 1,244, including 1,059 penal colonists, 75 free and conditionally pardoned free colonists, 70 members of colonists' families, 23 officers and employees, and 17 members of officers' and employees' families. The work divisions with their average daily strength are as follows:

Farming.....	252.55	Health and sanitation.....	23.22
Settlers.....	67.03	Police.....	52.59
Outstations.....	46.39	Executive.....	47.04
Animal industry.....	51.63	Serving.....	87.13
Horticulture.....	27.53	Land transportation.....	32.23
Construction.....	36.93	Water.....	11.38
Forestry.....	56.11	Information.....	9.98
Roads and bridges.....	42.45	Band.....	15.30
Engineering.....	63.30	Miscellaneous.....	54.02

The total area at present under cultivation is 448 hectares. Of this, 250 hectares are in the farming division, 80 of which were cleared during the past year. About ₱5,000 worth of upland rice was produced. The growing of this crop has not been found profitable because of the great amount of work involved in keeping the field free from weeds.

The work of segregating prisoners affected by tuberculosis was recently undertaken, and will be carried forward to completion during the year. While plans have not been definitely worked out yet, it is believed that a substation near Puerta Princesa Bay can be established for these prisoners and the work of planting and caring for coconuts turned over to them.

It is thought that the name "Iwahig Penal Colony" is unfortunate and has had no little retarding effect on the growth of this colony, which is really only a great plantation employing forced labor and which should be considered as such. There are neither stockades nor guards, and a much clearer conception of the real status and purpose of this colony would be had if it were known either as the Iwahig Reservation or the Iwahig Plantation.

BUREAU OF PRINTING.

The work of the bureau of printing has been conducted in a thoroughly satisfactory manner and has been confined chiefly to printing and binding in more or less large quantities for the various bureaus and offices of the insular government, the city of Manila, and provincial governments.

The gross receipts for work performed amounted to ₱830,044.12 the cost of operation was ₱753,477.48, leaving a net profit of

₱76,566.64. Public documents to the value of ₱37,832.25 were sold during the year.

The quantity of paper consumed was as follows:

	Pounds.
Book paper.....	317,307
Writing paper.....	366,510
Bond and ledger paper.....	106,727
Card and bristol board.....	54,906
Envelopes (all kinds).....	4,773,325

This is a considerable increase over the amount of paper used during the preceding year.

At the close of the fiscal year there were on the rolls of the bureau 28 Americans, 434 Filipinos, 1 European, 2 East Indians, and 1 Chinese—a total of 466 employees, of which, it will be noted, about 93 per cent are Filipinos.

As an industrial school the bureau of printing has accomplished a great deal toward the training of young Filipinos along practical lines of trade. At the close of the year 112 apprentices were receiving instruction in every branch of letterpress printing and in the auxiliary trades, such as engineering, electrical, and mechanical work. This is an increase of 23 per cent over the preceding year. Fourteen apprentices were graduated as junior craftsmen during the course of the year.

The work of the bureau of printing has for some time been greatly handicapped by the lack of floor space in the present building; and with the constantly increasing business this has now become a serious drawback to the efficient and prompt execution of orders. The increased volume of work has necessitated the installation of additional machinery, which, on account of the already cramped condition, could not be accommodated with any degree of convenience or safety. This requires considerable overtime and night work, causes added expense, and is detrimental to the health and efficiency of the employees. In the last annual report of the department it was recommended that more suitable quarters be provided for this bureau, and this recommendation is herewith earnestly reiterated.

The reports of the several bureau chiefs contain detailed information regarding their bureaus.

Very respectfully,

NEWTON W. GILBERT,
Secretary of Public Instruction.

To the PHILIPPINE COMMISSION.

Manila, P. I.

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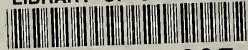
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